JUN 11 1928

SUPERINTENDENTS' CONVENTION

PAPER TRADE JOURNAL

Vol. LXXXVI, No. 23 JUNE 7, 1928 United States, Per Annum, $4.00 Canada and Foreign Countries in Postal Union, $6.00

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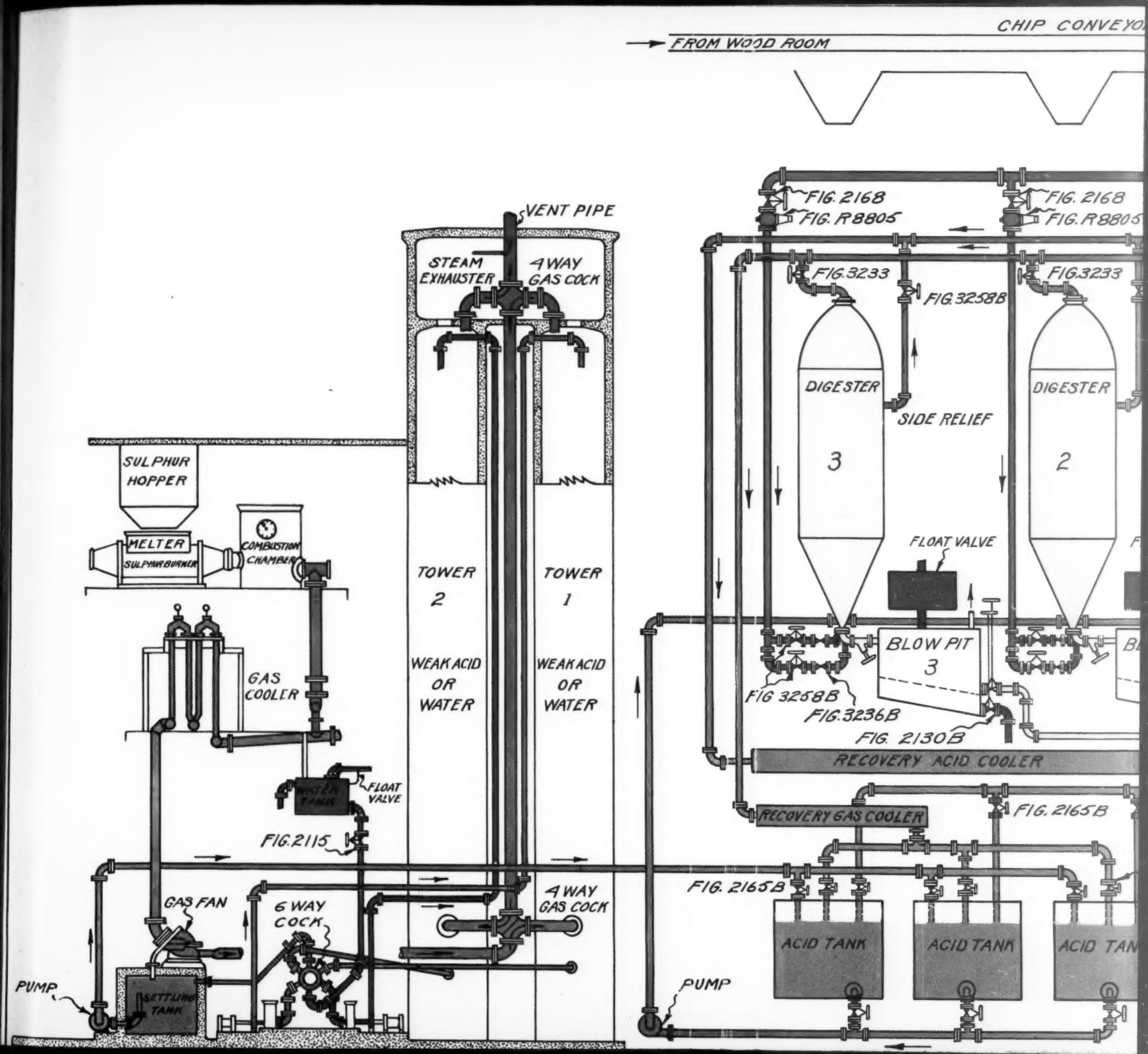
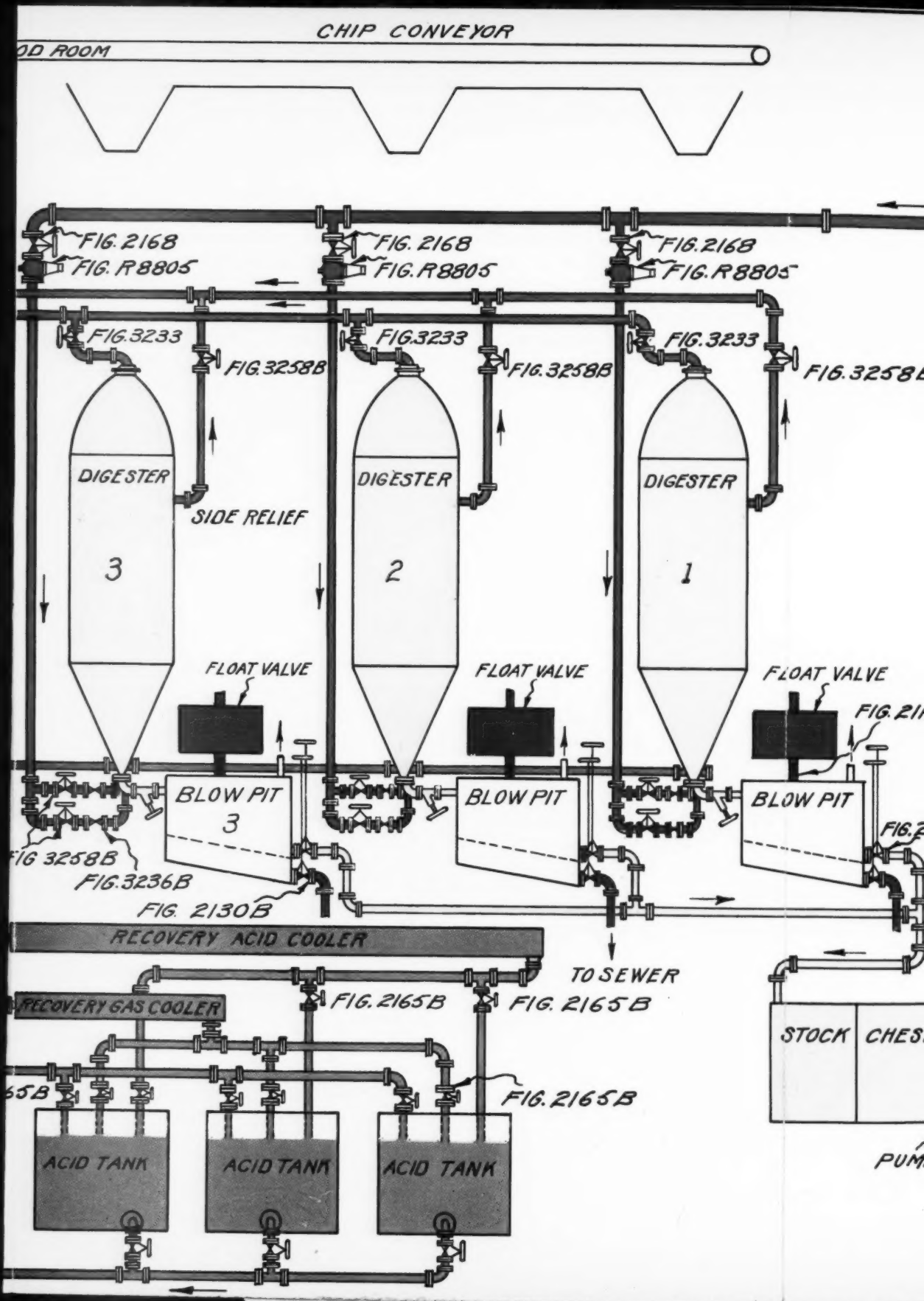

CHIP CONVEYO
FROM WOOD ROOM
FIG. 2168
FIG. R8805
FIG. 2168
FIG. R8805
VENT PIPE
STEAM EXHAUSTER
4 WAY GAS COCK
FIG. 3233
FIG. 3258B
FIG. 3233
DIGESTER
3
SIDE RELIEF
DIGESTER
2
SULPHUR HOPPER
MELTER
SULPHUR BURNER
COMBUSTION CHAMBER
TOWER 2
TOWER 1
FLOAT VALVE
BLOW PIT 3
GAS COOLER
WEAK ACID OR WATER
WEAK ACID OR WATER
FIG 3258B
FIG. 3236B
FIG. 2130B
RECOVERY ACID COOLER
FLOAT VALVE
RECOVERY GAS COOLER
FIG. 2165B
FIG. 2115
FIG. 2165B
GAS FAN
6 WAY COCK
4 WAY GAS COCK
ACID TANK
ACID TANK
ACID TAN
PUMP
SETTLING TANK
PUMP


CHIP CONVEYOR
OD ROOM
FIG. 2168
FIG. R8805
FIG. 2168
FIG. R8805
FIG. 2168
FIG. R8805
FIG. 3233
FIG. 3233
FIG. 3233
FIG. 3258B
FIG. 3258B
FIG. 3258B
DIGESTER
3
DIGESTER
2
DIGESTER
1
SIDE RELIEF
FLOAT VALVE
FLOAT VALVE
FLOAT VALVE
BLOW PIT
3
BLOW PIT
BLOW PIT
FIG. 3258B
FIG. 3236B
FIG. 2130B
RECOVERY ACID COOLER
TO SEWER
RECOVERY GAS COOLER
FIG. 2165B
FIG. 2165B
FIG. 2165B
ACID TANK
ACID TANK
ACID TANK
STOCK

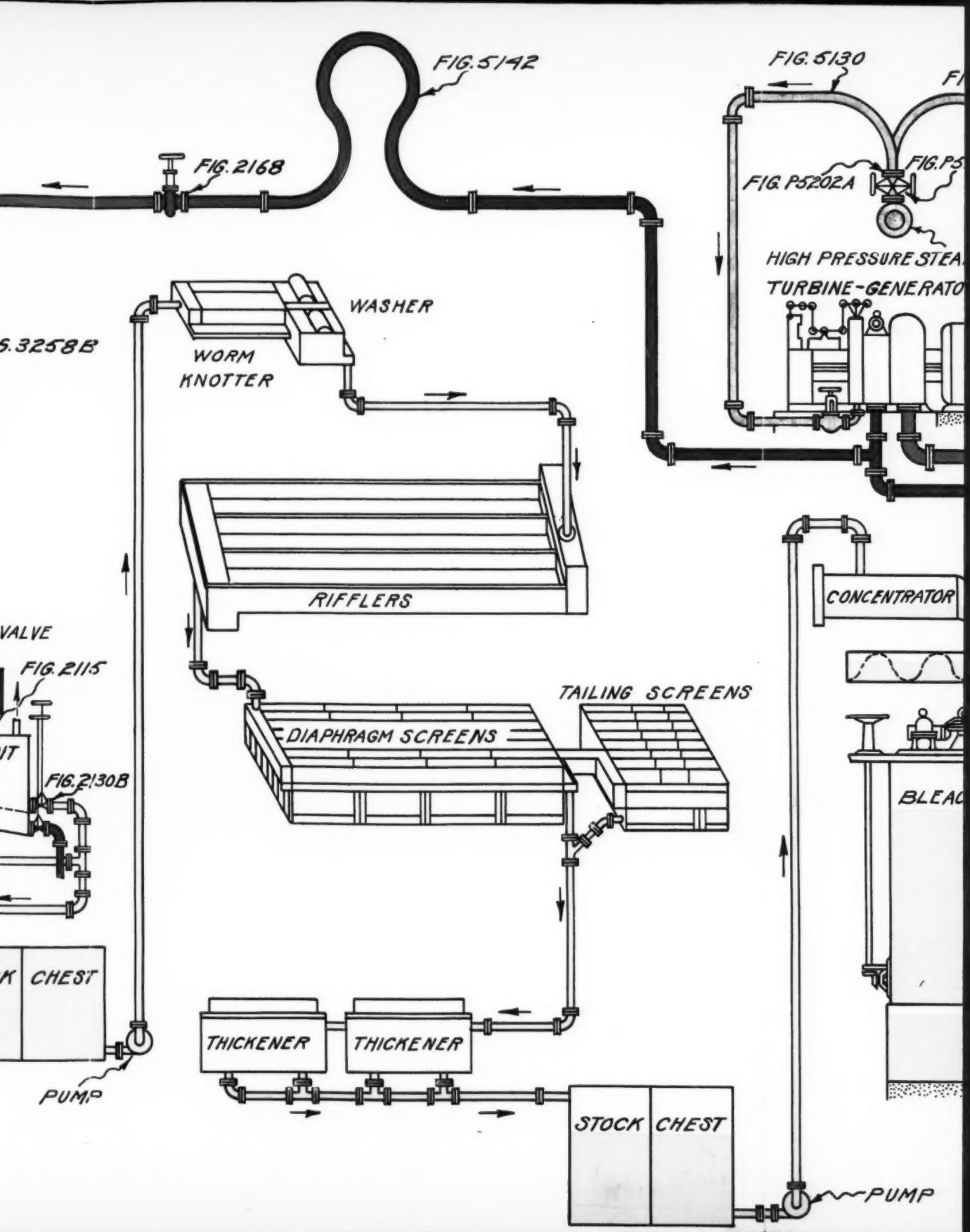


FIG. 5142
FIG. 2168
FIG. 5130
FIG. P5202A
HIGH PRESSURE STEA
TURBINE-GENERATO
S. 3258B
WASHER
WORM
KNOTTER
RIFFLERS
CONCENTRATOR
VALVE
FIG. 2115
TAILING SCREENS
DIAPHRAGM SCREENS
FIG. 2130B
BLEAC
K
CHEST
THICKENER
THICKENER
PUMP
STOCK
CHEST
PUMP

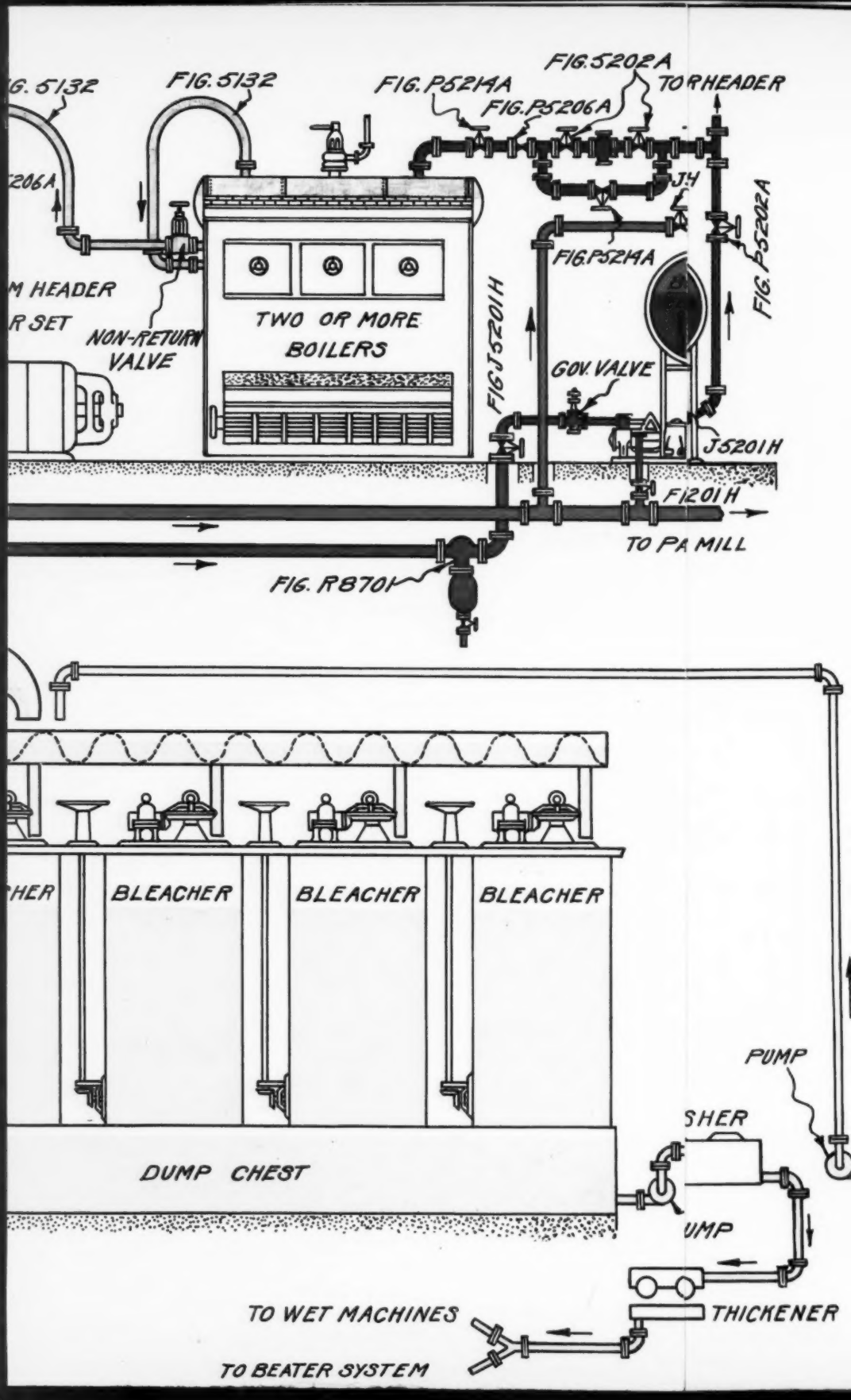


FIG. 5132
FIG. 5132
FIG. P5214A
FIG. 5202A
TO R HEADER
FIG. P5206A
J-H
FIG. P5202A
FIG. P5214A
M HEADER
R SET
NON-RETURN VALVE
TWO OR MORE BOILERS
FIG J5201H
GOV. VALVE
J5201H
F1201H
TO PA MILL
FIG. R8701
BLEACHER
BLEACHER
BLEACHER
PUMP
SHER
DUMP CHEST
UMP
TO WET MACHINES
THICKENER
TO BEATER SYSTEM

Piping and Valve Recommendation Chart

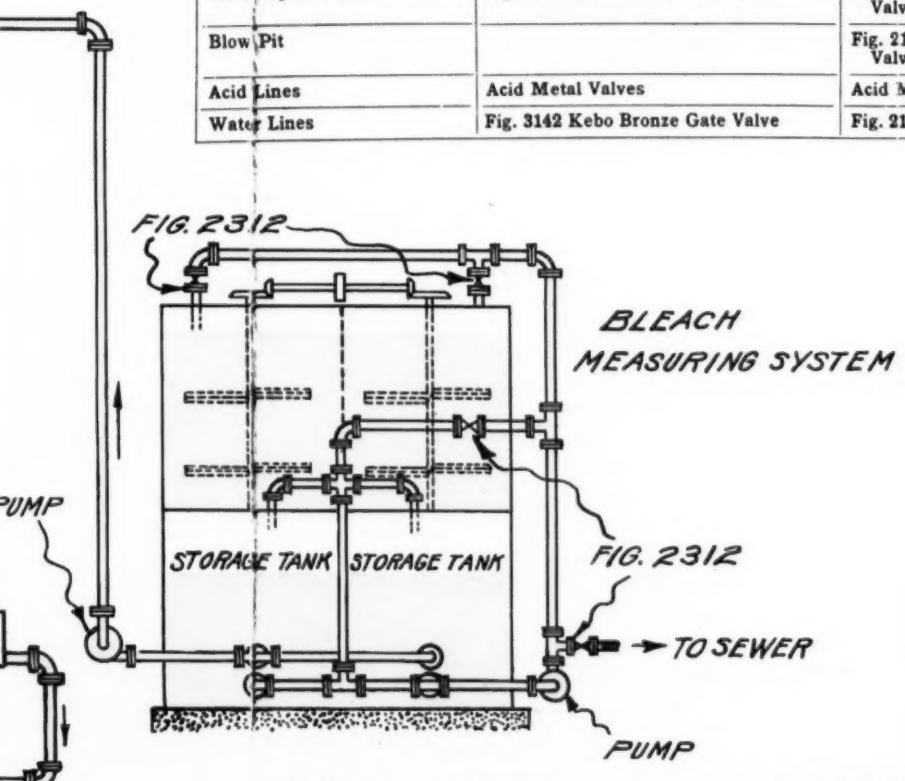
for a Sulphite Process Pulp Mill
prepared by Engineering Products Division

WALWORTH COMPANY

New York, N. Y., U. S. A.

Copyright 1928

Service		Pressures	VALVES	
			Up to 3 inches inclusive	Over 3 inches
Steam	Exhaust	0# to 25#	Fig. 3275 Regrinding Brz. Globe Valve Fig. 3142 Kebo Brass Gate Valve	Fig. 2209 I.B.B.M. Globe Valve Fig. 2116 I.B.B.M. OS&Y. Gate Valve
	Live Steam	25# to 200#	Fig. S207-B Regrinding Renewable Nickel Alloy Seat & Disc, Brz. Globe Valve Fig. S214-A Ex. Hy. Bronze Swing Check Valve Fig. 3142 Kebo Brass Gate Valve	Fig. 2231 I.B.B.M. Ex. Hy. Globe Valve Fig. 2236 I.B.B.M. Swing Check Valve Fig. 2168 I.B.B.M. Ex. Hy. OS&Y. Gate Valve
	Live Steam	200# to 400#	Fig. P5218-A WL Steel OS&Y. Gate Valve Fig. P5226-A WL Steel Globe Valve	Fig. P5202A WL Steel OS&Y. Gate Valve Fig. P5206A WL Steel Globe Valve
Boiler Feed Lines		0# to 200#	Fig. S207-B Regrinding Renewable Nickel Alloy Seat & Disc Brz. Globe V. Fig. 3142 Kebo Brass Gate Valve Fig. S214A Ex. Hy. Brz. Swing Check Valve	Fig. N5206H WL Steel Globe Valve Fig. N5202H WL OS&Y. Gate Valve Fig. N5214H WL Steel Swing Check Valve
		200# to 400#	Fig. P5226H & P5227H WL Steel Globe Valve Fig. P5218H WL Steel OS&Y. Gate Valve Fig. P5228H WL Steel Swing Chk. Valve	Fig. P5206H WL Steel Globe Valve Fig. P5221H WL Steel OS&Y. Gate Valve Fig. P5214H WL Steel Swing Check Valve
Bleach Liquor Lines			Fig. 2301 All Iron Plug Cock	Fig. 2312 Flanged All Iron Plug Cock
Relief Lines			Fig. 3230 Ex. Hy. Bronze Globe Valve	Fig. 3258 Ex. Hy. Bronze Globe Valve
Recovery Gas & Acid Lines			Fig. 3142 Kebo Bronze Gate Valve	Fig. 2165 Ex. Hy. Bronze, NRS. Gate Valve
Blow Pit				Fig. 2130 Bronze Quick Opening Gate Valve
Acid Lines			Acid Metal Valves	Acid Metal Valves
Water Lines			Fig. 3142 Kebo Bronze Gate Valve	Fig. 2115 I.B.B.M. OS&Y. Gate Valves



Kewanee unions should be used for all pipe connections on steam and water lines up to 3" where the pressure does not exceed 250# per sq. in.

All fittings and valves for high pressure steam and boiler feed lines to be Walworth Sigma Steel.

All Walmanco joint flanges to be of steel.

For details of pressure ratings and dimensions—see Walworth Catalog 83, Walworth Sigma Steel Bulletins and Kelly & Jones Catalog S.

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GREEN	—Water Lines	DARK BLUE	—Low Pressure Steam Lines
YELLOW	—Bleach and Stock Lines	RED	—Exhaust Steam Lines

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Long Life—Great Pull—Low Cost

PAPER TRADE JOURNAL

ESTABLISHED 1872

THE INTERNATIONAL WEEKLY OF THE PAPER AND PULP INDUSTRY AND THE PIONEER PUBLICATION IN ITS FIELD

FIFTY-SIXTH YEAR

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TABLE OF CONTENTS

Copyright, 1928, by Lockwood Trade Journal Co., Inc.

Superintendents Meet at Pittsfield 41
Paper Trade Drifting in Philadelphia 50
Lindsay Paper Co. Makes Additions 50
Scott Paper Co. to Increase Stock 52
Box Board Production for April 52
Paper Business Fairly Active in Chicago 54
Improved Service for Champion Paper Co. 54
Builds Machine for Dominion Box Boards, Ltd. 54
Price Break in News Print 56
Four New Machines for New Brunswick 56
Abnormal Flood Around Lake St. John 56
Expansion of Paper Box Industry in Canada 60
To Build New Paper Box Plant 60
Good Safety Record Interrupted 62
Work of Gummed Kraft Tape Committee 64
Pacific Coast Paper Carton Co. Formed 66
New Type of Beater Engine is Used 66
United Kingdom Installing Esparto Plants 66
Construction News 68
New Companies 70
To Avoid Overlapping Specifications 70
Paper Mill Employment Decreases 70
New York Trade Jottings 72
Editorial **76**
Advance Bag Starts Mill at Hodge 77
Simplification for Binders Board 77
Technical Section
Treatment of Fibers in the Rod Mill 79
Steam Plant Economies in Paper Mills 82
Slitter and Winder Troubles and Remedies 85
Experiences of an Envelope Manufacturer with Paper 86
Problems of the Printer With Paper 88
TAPPI New Members 90
Cost Section **91**
Imports of Paper and Paper Stock 96
New York Market Review **100**
Miscellaneous Markets **102**
Market Quotations **102**
Paper Mill Stocks and Bonds **106**

THE PAPER TRADE JOURNAL is indexed in Industrial Arts Index

Want & For Sale Advertisements 109, 110, 111, 112, 113

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PAPER TRADE JOURNAL

With Which Is Combined

PAPER

Vol. LXXXVI, No. 23 Thursday, June 7, 1928

Superintendents Meet at Pittsfield, Mass.

American Pulp and Paper Superintendents Association Holds Ninth Annual Convention in the Berkshires—Benjamin T. Larrabee, of the S. D. Warren Co., Cumberland Mills, Me., Is Chosen President for the Ensuing Year—Representative Men in the Industry Make Addresses on Interesting and Timely Subjects

[FROM OUR SPECIAL REPRESENTATIVE]

PITTSFIELD, Mass., June 2, 1928.—Today marked the closing sessions of the Ninth Annual Convention of the American Pulp and Paper Mill Superintendents Association, a convention noteworthy for the many things accomplished and establishing the record of having the largest attendance of superintendents of any convention yet held. A more ideal spot could not have been selected. Pittsfield, noted as a city of scenic beauty, located in the heart of the Alps of America, afforded an opportunity of close proximity to some of the oldest and largest and high grade paper mills in the North American continent. The New England hospitality, for which this section of the county is celebrated, was manifest everywhere; even the mayor of Pittsfield generously presented the proverbial key of his city to convention members and assured them he was there to serve them any hour of the day of night.

John J. White Calls Convention To Order

The sessions opened promptly Thursday morning at 9:30 o'clock, the convention being called to order by John J. White chairman of the convention committee who welcomed the members to the Ninth Annual meeting, outlining the three days program and then turned the session over to President Fred J. Rooney.

Hon. J. P. Barnes, Mayor of Pittsfield, in his welcome to the delegates gave some of the history of his city, with a population of 50,000, citing the fact that in its vicinity are located some of the oldest paper mills in United States. Assuring the members the hospitality of the city was theirs without any fringe of formality, he invited them to call on him for any service he could render.

Response to the mayor's address of welcome was made by Vice President James G. Ramsey who thanked the mayor and then in a concise talk reviewed the progress of the association, advising those in attendance that they were present to obtain knowledge which would tend to make them more efficient in handling their responsibilities and pointed out to them that unless they gave something of their knowledge and experiences in exchange for those of their brother members, they would gain only in so far as they gave.

Rev. M. H. Levy Delivers Invocation

Rev. Maurice A. Levy pastor of the First Baptist church, delivered the invocation. While President Rooney read the names of members of the association who had passed away during the past year, all stood and paid a silent tribute to their memory. After the appointment of nominating, and resolution committees President Rooney delivered his annual address as follows:

That our association has become an organization of value to the paper industry is a fact, that it can be increased in value to the industry at large and consequently to the membership is equally true.

"Come with us and *we* will do thee good."—Words spoken, I believe, by Moses, and from this we learn team work was necessary even back in those days for you will note the *"We."* It does not say *"I"*. No, in order to get good out of anything or produce anything of value there must be *we* or in other words, Cooperation—Team Work. That our Association has accomplished much of value is due to cooperation of its membership.

What is The American Pulp and Paper Mill Superintendents Association? The Superintendents Association is an organization with the sole purpose of increasing the efficiency in the operation of pulp and paper mills through the broad discussion and consideration among the superintendents of problems arising in the operation of such mills.

One of the greatest problems facing the paper industry today is more efficient operation of the mills. Let me quote:

"Manufacturers," declares Charles M. Schwab, "cannot expect to continue to be prosperous in this or any other country unless they study economy and the possibilities of cutting costs to a degree never before considered necessary."

"At the same time that strict economy is necessary, there has grown up a demand for high standards of quality never before reached in the history of large industry. Perfection is the war-cry and perfection at the least possible cost. Competition is at high tide and every organization must be in full trim from every standpoint to keep in the race."

That our Association will assist its members to bring about efficiency and economy is a fact.

To produce results action must be taken. Before a Superintendent does anything to increase the efficiency of his mill he must analyze his problem and know (not guess) why he does any particular thing. Through papers read and discussions held at our Association meetings superintendents may learn things so they need not guess at the proper solutions of their problems or troubles.

Divisions

The number of Divisions that make up our Association is the same as last year, eleven (11). I feel that with the exception of our Canadian Division there has been much more activity in all Divisions than during previous years. Monthly meetings are being held by a number of the Divisions and those Divisions

where monthly meetings are not practical, meetings of value have been held at opportune intervals. Divisional meetings with one good subject as a lead and plenty of open discussion are of the greatest value to our organization and its members.

Vocational Education

This subject has been given much thought in an effort to bring about some workable plan that would be of practical value.

Mr. J. Norman Spawn as Chairman of the Vocational Education Committee has put forth great effort to accomplish results. That Mr. Spawn is now well on the way toward a practical plan is a fact, I am sure.

The parent body, The American Paper and Pulp Association and T. A. P. P. I. have appointed two men each to work with Mr. Spawn and Mr. Weston of our Association. This will avoid duplication of effort and also surely develop the best possible plan. It is to be hoped Mr. Spawn and Mr. Weston will continue as representatives from our Association in this important work.

Some few years ago President Coolidge, then Vice-President, stated that the second most urgent business before the nation was "Education." If this was true of the nation surely it must be true of our industry. Hence as an Association one line of work we may follow that will produce results of value is Vocational Education.

Membership

Our membership has shown a healthy growth during the past year, something over forty superintendents having become members. As the mill executives recognize the valuable work our Association is doing, I am sure they will urge their superintendents who are not members to join, and not only join but attend and take part in our meetings, thereby getting the greatest value from their membership.

To repeat what was stated in my message last year, "Only when one gives can he hope to receive—so in our Association work those members who give of their time, their effort, their knowledge and their interest will receive the greatest benefit.

It is a fact over the past year more members have taken an active part in Assocation work. Hence it is that our Association has advanced and is a more important factor in the paper industry.

In the past few years an increase of 28% more goods; 33% increase in productivity of every man hour; 33% increase in use of primary power in manufacturing has taken place. Does anyone think there was no interchange of ideas between the executives who made these records? The Superintendents Association stands for and practices the interchange of ideas believing this will result in progress and efficiency among its members.

Conventions and Meetings

That care and effort must be exercised in the selection of subjects for our annual convention is important if we hope to make such meetings valuable to our membership and warrant the attendance of the greatest number possible of superintendents.

At our Annual Conventions we should put special effort on Sectional meetings such as Book and Fine Writings, Kraft, News, Board, Tissue, Mechanical-Chemical Pulp. By arranging for such meetings it allows more time for the men directly interested in each particular line to get information of direct value and will I am sure tend to increase attendance at our conventions.

Then, too our programs are carefully scrutinized by mill executives. Hence, these programs must carry subjects of vital interest and value if we hope to continue to receive the splendid support we are getting today from the majority of the mill executives.

Just a word as to Divisional meetings held through the year. Wherever it is possible, monthly meetings are the very best plan.

An elaborate program is not at all necessary. One good subject with a leader is all that is necessary for a good Divisional meeting. As to entertainment a simple dinner, perhaps some music and a local speaker will suffice and means very little expense.

It has been your President's privilege to attend five Divisional meetings during the year and at each there was shown keen interest in talks pertaining to the actual work of the superintendents. At each of these meetings a considerable number of the superintendents took part in the meeting and this is exactly as it should be. So far as possible it would be well to have superintendent members read the papers or give the talks at Divisional meetings.

Practical Problems Committee

The committee was created by vote of the Convention two years ago. That it could and should be one of value to the members there can be no question. I regret to say that due to lack of use or demand on the committee it has not been of great value. We have the committee. It is the fault of the members it is not used.

The Parent Association

To the President of The American Paper and Pulp Association, J. C. Everest, we are deeply appreciative for hearty cooperation and assistance in our work. Through the courtesy of Mr. Everest your President was accorded the honor of appearing before the American Paper and Pulp Association at New York on February 21st to present briefly the aims and objects of The Superintendents Association.

At this point I wish to mention the very pleasant and cooperative relations existing between our Association and the Technical Association of the Pulp and Paper Industry.

Conclusion

To Robert L. Eminger our National Secretary we owe much. He renders assistance of value to the President, other National officers and Divisional officers. Very few of our members realize the vast amount of work that "Bob" does and to him above everyone else is credit due for our splendid financial condition. It is due to his untiring efforts that each year our "Year Book" is a success. Some criticism has come to me for lack of assistance from National Secretary to certain Division officers. The criticism was unwarranted and without basis of fact. At no time has our National Secretary refused assistance when called upon but many times he has been unable to get any cooperation from Divisional officers and in some cases has been unable to get even a report of meetings held, officers elected, and so forth. I trust "Bob" will be continued as National Secretary indefinitely and I herewith recommend at an increase in salary.

To those who so successfully arranged and carried through our Convention at Richmond in 1927 we owe much. As president I appreciate the splendid work they did. It was beyond question the most valuable Convention our Association ever held.

To Carl Magnus, as general chairman, and his co-workers, I extend the thanks of the Association and most emphatically my own personal appreciation as president.

Over the past two years while honored with the Presidency of this Association, I have worked hard to build it up, to strengthen its position in the paper industry. While it has meant work, in the main it has been pleasant and the more so because of the cooperation of my fellow officers. I believe in our Association, its work, and its future. My efforts in some cases may have been criticised. This I expect, but so long as such criticism is constructive, advancement will prevail.

Men, let us all as members of The American Pulp and Paper Mill Superintendents Association, work for its growth, its advancement, its value to the industry and for unquestioned respect by all mill executives, thereby bringing results of value to every member of our Association.

Let us go on the bigger and better things.

Business Sessions Open

At the conclusion of the address, the business sessions opened with the reading of a paper by L. J. List on the subject "How

JAMES G. RAMSEY
1st Vice Pres.

to get best results from Slitters and Winders," followed by F. C. Farnsworth of the F. C. Farnsworth Company, treating with "Steam Plant Economics in Paper Mills." This talk illustrated, brought forth discussion which indicated the trend of minds of those present, they were here to learn and nothing new or of real interest was to escape their attention. The development of the use of lift-trucks in the industries during the past fifteen years was well taken care of in the paper by Theodore T. Ludlum of Steubing-Couvan Company, "Adaptability of Lift Trucks" illustrated with views of lift-trucks in operation under different conditions in paper and pulp mills. "Experiences of an Envelope Maker with Paper" was a subject intelligently handled by James J. Shea of the United States Envelope Company, who indicated some of the problems of the paper converter which proved to be of the character that the producer of paper is at all times endeavoring to overcome. "Improved Shaking Apparatus for Fourdrinier Machines" was the title of the paper read by C. E. Macklen of the Beloit Iron Works, denoting the many new features which are now employed in the equipping of the modern paper machine.

Divisional Meetings

Adjourning for lunch, the afternoon was devoted to special meetings of the Fine Paper Division which through the courtesy of the Crane Company was held at the latter's community house at Dalton, Mass., where at the close of the meeting an inspection of the Crane Mills was made.

The tissue papers division held its meeting at the Masonic Temple and the Coarse Papers section at the Hotel Wendell.

Annual Banquet Thursday Evening

The social event of the convention was the Annual Banquet on Thursday evening. It surpassed in variety and quality any similar occasion of the past. The presence of the evening's guest, John B. Kennedy, associate Editor of *Collier's Weekly,* known to radio fans as the "Emperor of America" was largely due to a little miss of eleven years, Rose Margaret White. It seems that this charming little lady has long been an admirer of the "Emperor of America" and naver fails to listen in on his Sunday evening broadcasting. Her father John J. White, hit on the idea of having both present on this occasion and the charming manners risplayed by his daughter as well as the interesting talk of Editor Kennedy were ample reward for his untiring efforts as chairman of the conventon committee. Both captivated the audience and Mr. Kennedy's discourse on what constitutes "personality" which he contended was based solely on "Culture" of the individual, was a masterful presentation of a subject which apparently has heretofore been little appreciated and given a difierent interpretation.

The musical features of the evening included selections by the Philharmonic Quartette of Springfield, Mass., character impersonations by Peter Murray and classical and popular songs by Mlle. Therese Quadri, a young lady possessing a soprano voice of exceptional quality with the added advantage of an attractive personality.

A most pleasing feature of the banquet was the attendance of Winthrop W. Crane, Jr., son of the late Senator W. Murray Crane, as a guest. His presence strongly indicated how the superintendents' association is coming to be recognized by the leaders in the industries as being of real constructive value to the industries as a whole. In his remarks, when called upon to address the members, Mr. Crane emphasized his belief in the values to be derived from associ-

BENJ. T. LARRABEE
President

CARL MAGNUS
2nd Vice Pres.

CHARLES N. MOONEY
4th Vice Pres.

ROBERT L. EMINGER
Sec.-Treas.

ation work and spoke of benefits he had received from the various associations in the industries of which he is a member, through the exchange of ideas.

Friday Morning Session

The Friday morning session opened with a paper by Otto W. Fuhrinannn, production counsellor of the Blanchard Press Inc. of New York, his subject being "The Printers Problems with Paper." This proved to be one of the best papers ever delivered before any convention, and Mr. Fuhrinann's talk indicated he was more than superficially acquainted with both the paper makers problems and those of the printer. The subject of "Vocational Education in Paper Mills" was handled by J. Norman Spaun and R. W. Jenkins who with the means of a blackboard gave a demonstration of a conference and its possible uses in a plant educational campaign.

M. J. Argy of the Cliff Paper Company of Niagara Falls, who recently returned from a trip around the world during which he visited many of the leading paper mills in search of information relative to the "Pre-Drying of Paper" outlined some of his experiences, especially referring to a system which he has adopted in his own mill whereby he has increased the production 13 per cent his own machine, an increase of 275 pounds per hour. This machine has only 18-36 inch dryers and is producing 27 tons of Hanging paper with a width of 92 inches. His report follows:

Last fall our manager, Arthur C. Hastings, requested me to go to the Wheelwright Mills in Leominster, Mass., to see their method of pre-drying their paper on Bristol Boards.

They were using a nest of two dryers on one machine and three dryers on the other. These dryers were set between the second and third presses. They were getting splendid results with this arrangement, getting their paper much dryer going on to their dryers, and using much less steam than before, and were able to get a very much increased production.

I went over the matter very carefully, and got estimates for the installation on our two News machines at Niagara Falls. The lack of room and the excessive cost prevented us from making the installation of this method at that time. However, the idea of pre-heating the paper before pressing had such a hold on us that we began experiments with that end in view. One day my foreman suggested that we reverse the Baby dryer and bring the paper around that dryer before it entered the last press. We did this, and the results were remarkable.

We were carrying 40 lbs. pressure on our dryers at the time and the pressure immediately dropped back to 30 lbs. We were running the machine on 10 ounce Hanging at the time, running 375 feet per minute, and we were enabled to speed up the machine to 425 feet before bringing the pressure back to 40 lbs., thereby increasing the production of the machine a little over 13%. The machine was making 2,046 lbs. per hour with the old method and made 2,321 lbs. per hour with the new method.

This machine has only 18-36 "dyers and any superintendent here knows what a production of 27 tons of Hanging on a 92" machine with that many dryers, means.

We have patented this pre-dryer proposition and we have bought the Pederson Patents, which is the system that the Wheelwrights are using. We are now covered on any method that may be used in heating the paper before pressing and have formed a company to exploit the same.

I will now read to you the results obtained by a chemist from a series of test runs in our mill for the past week:

The whole thing figures out that a mill making 40 tons of paper with the old method, can increase its production 4 tons per day with the outlay of a very small sum. The extra 4 tons cost nothing for conversion. If the average mill has a cost of $20.00 per ton for conversion, this extra production would mean a saving of $80.00 per day.

In these times, this means the salvation of some of us.

I might add that the heating of the sheet before entering the press has somewhat the effect of a smoothing press. The paper being compressed in a warm state increases its strength and folding qualities. It also gives the sheet a firmer feel and a decidedly better surface.

CLIFF PAPER COMPANY—PAPER MACHINE TESTS

Date	Process	Weight of paper, 500 sheets 24x36, in pounds	Steam used per 1,000 lbs. of paper, in pounds	Steam pressure, in pounds	Steam temperature in degrees F.	Water removed at 2nd press in lbs. per hour	Temperature of water removed in degrees F.	Dry matter in pulp at 1st press	Dry matter in pulp at 2nd press
May 22	New	87	2,000	26.7	271.4	....	...	30.3	37.9
	Old	do	2,210	30.0	273.0	....	...	31.4	36.2
May 23	New	62.5	2,050	16.0	253.4	1176	78.8	31.0	38.9
	Old	do	2,270	22.0	263.2	1064	71.6	31.5	37.8
May 24	New	62.5	2,040	17.0	254.1	1056	83.3	30.8	37.0
	Old	do	2,380	24.9	262.4	936	71.6	31.0	35.9
May 26	New	33	3,010	23.0	268.0	858.0	82.4	30.5	34.0
	Old	do	3,120	30.0	274.1	496.5	74.3	30.8	31.9

John A. Matthews, vice president of Crucible Steel Company of America, read a paper on "The Use of Corrosion Resistant Steels In the Paper Industry" which elicited a cross fire of questions from many of those present now using different types of "non-corrosion" metals, each type having adherents who expressed themselves rather confidently of the merits of the respective metals they were using.

The nominating committee at this session reported their selection of officers for the ensuing year which was unanimously voted upon favorably.

Election of Officers

The officers elected were, President, Benjamin T. Larrabee of S. D. Warren Company; 1st Vice President, James G. Ramsey of Jessup & Moore Company; 2nd Vice President, Carl Magnus of Standard Paper Manufacturing Company of Richmond; 3rd Vice President, Tom Harver of Gardner-Harvey Company; 4th Vice President Charles Morrey of Smith Paper Company, Lee, Mass.; 5th Vice President L. E. Smith of the Nekoosa-Edwards Paper Company; Secretary and Treasurer, Robert L. Eminger. The retiring treasurer Peter J. Mossey, one of the founders of the association, was voted a life membership.

To Have Board of Trustees

The committee on resolutions through its chairman Fred Boyce recommended the electing of a board of trustees, composed of three members, which will have charge of all funds of the association in excess of three thousand dollars, the latter amount to be held by the treasurer, the trustees to invest such funds in securities of recognized value. The members of this board are to be elected for one, two and three years respectively. The resolution was adopted unanimously and Nelson R. Davis of S. D. Warren Company was elected the first trustee for three years and as treasurer of this board. The selection of the two members, serving for one and two years, was placed with the executive committee whose choice will be announced later.

Immediately after lunch on Friday a large number of the members were guests of the Pittsfield branch of the General Electric Company where they witnessed the newest development in electricity, the reproduction of lightning with practical demonstrations of the various results of its destructive force. One of the demonstrations was the splitting of logs by the artifical lightning, the parts being presented to the visitors as souvenirs.

Men's Banquet

The Men's Banquet which took place last evening was presided over by President Fred J. Rooney as toastmaster. The speaker of the evening was George K. Gibson Salesmanager of the Mosinee Paper mills who spoke on the "Viewpoints of a Paper

Salesman." Mr. Gibson in his remarks dwelt especially on one factor which is today a handicap to the paper industry overproduction. He citied the fact that 12,500,000 tons of paper were produced in 1927 of which 10,000,000 were sold, leaving an overproduction of 2,500,000 tons. He paralleled other industries which he contended were suffering from similar conditions, among them the automobile industry, and agriculture. Mass production he reassured was necessary to maintain a low level of production cost but unless the market existed to absorb the production it meant doing business at a loss. In the paper industry he maintained thought was first given to the erection and equipping the plant and after it was in production a market was sought for the product. The possible market should be determined first before thought is given to building the mill. He urged the superintendents to take back with them a message for their mill managers to have them visit their markets more frequently and thereby have their hands on the pulse of conditions and be in a position more closely to regulate their production.

Another speaker W. H. Cronkhite of the General Electric Company made the suggestion that the members of the Association through their Divisional committees interchange suggestions as to what subjects should be discussed at the convention sessions and have the various committees collect the data intended to be brought up for discussion. He was convinced more of real constructive value would therefore be presented at the annual meetings. While this would tend to dispose of the present policy of having manufacturers or their representatives read papers which primarily related to their respective types of equipment or processes, he suggested that following out his idea it would be advisable to have the manufacturers whose products would enter the subjects for discussion, have their representatives present to relate their experiences and offer solutions of the problems presented. His idea carried into effect would open a field of broader discussions and tend to hold keener interest for those attending the meetings. As it is at present unless a paper to be read is of special import to a member he is likely to omit that particular time of the meeting and attend only when something of individual interest is to be heard. His reasoning was that too much dependence in the past had been placed on equipment manufacturers to make up the convention programs.

Entertainment Features

The entertainment features comprised specially and novelty musical turns of the finest type, each performer being a real artist in his or her particular line. Clarence T. Hubbard who was presented as being an Insurance man of Hartford, Conn., held the audience spell bound by his magic which was the more interesting because of a parallel he would picture in his talk of the trick being performed and its relation to some principle of business. The ladies who had been enjoying their own banquet in a separate dining hall were invited to join the men for the entertainment programs and their presence gave added pleasure to the occasion.

Saturday's Sessions

Today's session the last of the convention proved to be the most interesting of the three days meetings, judging by the large attendance, usually very small on the closing day, and the keen attention given to the papers read which called forth continued discussions as each speaker finished with his paper.

The meeting opened with a paper by W. A. Gocke whose subject was "adapitability of the Rod Mill for treatment of Fibers." Mr. Gocke covered the subject of "Refining" from its inspection in the paper industry through its various evolutions to the present day use of the "Rod Mill" advising that although much had been accomplished there was still considerable development yet to be done in connection with the "Rod Mill."

"Automatic Control of Moisture in Paper" was a paper presented by Albert Allen of the Atlantic Precision Instrument Company, who was well conversed in his subject and cheerfully handled the many interrogations put to him in a most convincing manner.

Ogden Minton of the Minton Vacuum Dryer Corporation who has spent many years developing a vacuum drying system read a paper entitled "The Vacuum Paper Machine Dryer" which interestingly conveyed what his years of effort had developed. He thoroughly covered the progress made in the use of dryers from the first attempt made in 1821 by T. B. Crompton an Englishman, who by the use of cloth held the web of paper against heated cylinders, down to his present type of vacuum dryer now installed in the plant of Price Bros. & Co., Ltd. During the discussion of Mr. Mintons paper it was brought out that the Minton Vacuum Dryer reduces the drying section of a paper machine, one half, that the drying process closely approximates 100 per cent terinal efficiency. Further that no vapors are set free in the machine room, working conditions are greatly improved making it easier to attend the machine and half the length of Drier felts are required as compared to the standard type of machine. Levi H. Fralick of the Algonquin Paper Company delivered a short talk which concerned mostly the varying results obtained from the use of natural and artifical pulp stones. This resulted in a general discussion many citing their experience with both types of stones, it being generally agreed that the artifical stone will render the longer service though the pulp it produces contains a per cent of grit, which it not generally found in pulp made with the natural stone.

During the closing hours many expressions of thanks were voted those who had given of their time to make the convention the huge success it proved to be. Among the recipients of such appreciation were John J. White, chairman of the convention committee, his son John J. White Jr., and Brod West of E. D. Jives & Son Co. in charge of transportation. During the meeting the Pennsylvania and New Jersey divisions held a meeting and selected York, Pa. as the place for holding their next joint meeting the date for which is Thursday June 21.

Papers in Technical Section

A number of the papers read at the convention appear in the Techinical Section of the PAPER TRADE JOURNAL.

Those Who Attended

Among those in attendance were:

Oscar Adams, A. L. Adams Paper Company, Boldwinsville, Mass.
A. J. Allison, Dayton, Ohio.
H. J. Andrews, Shartle Bros. Machine Co., Middletown, Ohio.
James J. Andrews, Fox Paper Company, Lockland, Ohio.
Wm. P. Argy, Argy Pre-Heater Company, Turners Falls, N. Y.
Wm. J. Argy, Harmon Paper Company, Brownville, N. Y.
M. J. Argy, Cliff Paper Company, Niagara Falls, N. Y.
P. W. Ayers, Mountain Mill Company, Lee, Mass.
G. J. Armbruster, Fraser Company, Ltd., Edmundston, N. B.
Edgar S. Baker, Phoenix Paper Mills, Inc., Battenville, N. Y.
Joseph Bario, Taylor Logan Company, Holyoke, Mass.
Andrew T. Barnett, American Writing Paper Company, Holyoke, Mass.
F. L. Barstow, U. S. Rubber Company, Fitchburg, Mass.
D. K. Bartlette, American Writing Paper Company, Windsor Locks, Conn.
A. L. Beals, Newark, Del.
A. E. Benebaum, Dixon Board Mills, Carthage, Md.
Bernard Benson, Williams Gray Company, Chicago, Ill.
Geo. L. Bidwell, Warren Manufacturing Co. Milford, N. J.
John Bingham, Dill & Collins Company, Philadelphia, Pa.
J. E. Blosser, Scott Paper Company, Chester, Pa.
F. C. Boyce, Wausaw Paper Mills Company, Wausau, Wis.
Geo. Bonner, Falls Manufacturing Company, Oconto Falls, Wis.
Herbert L. Boyce, St. Regis Paper Company, Watertown, N. Y.
Ed. Boyd, Stevens & Thompson, Greenwich, N. Y.
P. D. Bradley, Fort Howard Paper Company, Green Bay, Wis.

C. A. Brautlecht, University of Maine, Orono, Maine.
L. H. Breyfogle, Draper Brothers Company, Kalamazoo, Mich.
A. W. Bronk, St. Regis Paper Company, Carthage, N. Y.
H. L. Brooks, Provincial Paper, Ltd., Mille Roches, Ont.
M. V. Brooks, Miamisburg Paper Company, Miamisburg, Ohio.
William Brydges, Bedford Pulp & Paper Company, Big Island, Va.
J. Howard Burke, Deerfield Glassine Company, Monroe Bridge, Mass.
S. V. Burrows, Kalbfleisch Corporation, New York, N. Y.
Ernest W. Bush, Crocker McElwain Company, Holyoke, Mass.
P. W. Carr, National Aniline and Chemical Company, Boston, Mass.
A. L. Cassie, American Writing Paper Company, Holyoke, Mass.
Chas. Champion, Millers Falls Paper Company, Millers Falls, Mass.
Kenneth R. Charlton, B. F. Perkins & Sons Company, Holyoke, Mass.
Wm. B. Clements, Fitchburg Paper Company, Fitchburg, Mass.
Chas. E. Conley, Downingtown Machine Corporation, Downingtown, Pa.
W. H. Croft, Esleeck Manufacturing Company, Turners Falls, Mass.
W. A. Crawford, Standard Paper Company, Kalamazoo, Mich.
W. W. Cronkhite, General Electric Company, Schenectady, N. Y.
Lester W. Crouse, Paper Makers Chemical Company, Bogota, N. J.
W. H. Cunningham, Mead Pulp and Paper Company, Dayton, Ohio.
Chas. Davidson, Jr., Southworth Paper Company, Mittineague, Mass.
H. A. Des Marais, General Dyestuffs Corporation, Boston, Mass.
Hubert J. Desmond, Keyes Fibre Company, Shawmut, Me.
Harry W. Deffew, Standard Paper Manufacturing Company, Richmond, Va.
Thos. F. Dillon, Chemical Paper Manufacturing Company, Holyoke, Mass.
E. Driscoll, Smith Paper Company, Lee, Mass.
A. B. C. Drew, The Pairpoint Corporation, New Bedford, Mass.
Chas. L. Ellis, Downingtown Machine Corporation, Downingtown, Pa.
Robert L. Eminger, Miamisburg, Ohio.
R. F. Engelhardt, United Paper Board Company, Thompson, N. Y.
Earl C. Esty, American Writing Paper Company, Holyoke, Mass.
Fred H. Fielding, Diamond Mills Paper Company, Bloomfield, N. J.
Levi A. Fralick, Algonquin Paper Corporation, Ogdensburg, N. Y.
George J. Forman, Schmidt & Ault Paper Company, York, Pa.
Val Friedrich, Jr., Beckett Paper Company, Hamilton, Ohio.
L. A. Fischer, Case Manufacturing Company, Unionville, Conn.
Victor E. Fishburn, Gilman Paper Company, Gilman, Vermont.
S. J. Fortune, Rochester Paper Company, Rochester, Mich.
E. J. Fringelin, Diamond State Fibre Co., Bridgeport, Pa.
S. H. Garrigan, Continental Paper and Bag Corporation, Rumford, Maine.
James Geraghty, American Writing Paper Company, Holyoke, Mass.
Edw. W. Gibbons, Smith Paper Company, Lee, Mass.
E. H. Gilman, Bryant Paper Company, Kalamazoo, Mich.
Chas. D. Higgins, Blake & Higgins, Bellows Falls, Vt.
John W. Hagar, Crane & Co., Dalton, Mass.
Clarence Harter, Watervliet Paper Company, Watervliet, Mich.
Tom Harvey, Gardner-Harvey Company, Middletown, Ohio.
Patrick J. Healy, Hollingsworth & Vose Company, W. Groton, Mass.
Adolph Hess, Fibre Conduit Company, Richmond, Ind.
A. M. Hickson, Niagara Falls Products Company, Niagara Falls, N. Y.
A. S. Hooper, International Paper Company, Piercefield, N. Y.
J. A. Inge, Albermarle Paper Company, Richmond, Va.
R. W. Jenkins, Columbus, Ohio.
F. C. Johnson, Sherman Paper Company, Watertown, N. Y.
D. M. Kelly, Bloomer Brothers Company, Newark, N. Y.
R. H. Kelly, Marathon Paper Mills, Rothschild, Wis.
John P. Kennedy, American Writing Paper Company, Holyoke, Mass.
C. H. Kephart, York Haven Paper Company, York Haven, Pa.
Moore C. King, Monadnock Paper Mills, Bennington, N. H.
Harold W. Knight, Bulkely, Dunton & Co., Holyoke, Mass.
Harry J. Kruse, Gilman Paper Company, Filman, Vt.
F. C. Ladd, Byron Weston Company, Dalton, Mass.
Arthur B. Larchar, Penobscot Chemical Fibre Company, Old Town, Me.
Benj. T. Larrabee, S. D. Warren Company, Cumberland Mills, Me.
John C. Leishman, C. H. Dexter & Sons, Inc., Windsor Locks, Conn.
W. T. Libby, Brown Company, Berlin, N. H.
Theodore T. Ludlum, Stuebing-Cowan Company, Holyoke, Mass.
Chas. J. Ludwig, Mead Pulp and Paper Company, Chillicothe, O.
Thomas Legge, Mohawk Paper Makers, Cohoes, N. Y.
A. J. Loman, Robert Gair Company, New London, Conn.
Harry W. Mack, Shuler & Benninghofen, Hamilton, Ohio.
Thos. M. Martin, Hammersley Manufacturing Company, Garfield, N. J.
W. F. McLellan, W. Springfield, Mass.
Roger W. McCorkindale, Parsons Paper Company, Holyoke, Mass.
E. J. McDonnell, Groveton Paper Company, Groveton, N. H.
Frank S. McDonnell, Tilleston & Hollingsworth Company, Milton, Mass.
C. H. McDuffee, Claremont Paper Company, Claremont, N. H.
R. G. Macdonald, Secretary Technical Association, New York City.
Wm. MacGregor, Bemis Brothers Bag Company, Peoria, Ill.
John J. Meyer, Marathon Paper Mills, Menasha, Wis.
Chas. N. Mooney, Smith Paper Company, Lee, Mass.
Frank J. Mooney, Smith Paper Company, Lee, Mass.
Jos. A. Moses, Falulah Paper Company, Fitchburg, Mass.
James Miles, Deerfield Glassine Company, Monroe Bridge, Mass.
E. H. Neblett, Standard Paper Manufacturing Company, Richmond, Va.
W. L. Nixon, American Writing Paper Company, Holyoke, Mass.
C. H. Noble, A. E. Staley Manufacturing Company, Kalamazoo, Mich.
A. F. Norris, Deerfield Glassine Company, Monroe Bridge, Mass.
J. H. O'Connell, Farnsworth Company, Conshohocken, Pa.
Heth Owen, Albemarle Paper Manufacturing Company, Richmond, Va.
J. Owens, Jr., The Fibre Conduit Company, Orangeburg, N. Y.
Samuel Partington, Continental Paper and Bag Corporation, Greenwich, N. Y.
E. W. Peppard, Parker-Young Company, Boston, Mass.
Theodore M. Pomeroy, Z. & W. M. Crane, Inc., Dalton, Mass.
Geo. M. Pomeroy, Warren Parchment Company, Dexter, N. Y.
J. W. Raines, Lindsay Wire Weaving Company, Cleveland, Ohio.
James G. Ramsey, Jessup & Moore Company, Wilmington, Del.
W. H. Randall, Keyes Fibre Company, Inc., Waterville, Me.
G. F. Reale, Hooker Electrochemical Company, New York City.
Geo. W. Reardon, American Writing Paper Company, Holyoke, Mass.

Michael Redmond, Kalamazoo Paper Company, Kalamazoo, Mich.
A. F. Richter, Stebbins Engineering and Manufacturing Company, Watertown, N. Y.
John R. Roberts, Du Pont Company, Wilmington, Del.
Walter S. Rooney, Albany Felt Company, Albany, N. Y.
F. J. Rooney, Upson Company, Lockport, N. Y.
Geo. Roschek, Eagle Paper Company, Joliet, Ill.
James Salter, Victoria Paper Mills, Fulton, N. Y.
Frank Sammett, Crane & Co., Dalton, Mass.
Fred Scheid, Watervliet Paper Company, Watervliet, Mich.
D. E. Scott, Adams Bag Company, Chagrin Falls, Ohio.
H. W. Server, Oxford Miami Paper Company, West Carrollton, Ohio.
P. J. Sievert, Marinette & Menominee Paper Company, Marinette, Wis.
Ward Smith, Container Corp. of America, Philadelphia, Pa.
Sam Smith, Hollingsworth & Vose Company, West Groton, Mass.
J. Norman Spawn, Champion Fibre Company, Canton, N. C.
Edward L. Stansel, Provincial Paper, Ltd., Mille Roches, Ont.
B. K. Steadman, Standard Paper Manufacturing Company, Richmond, Va.
Clyde W. Stewart, Parker Young Company, Lincoln, N. H.
Homer E. Stafford, Hawthorne Paper Company, Kalamazoo, Mich.
Geo. W. Sterrett, National Biscuit Company, Marseilles, Ill.
J. J. Sullivan, W. C. Hamilton & Sons, Inc., Philadelphia.
Wm. H. Sutherland, Penn Fibreboard Corporation, York, Pa.
K. E. Terry, S. D. Warren Company, Westbrook, Me.
B. M. Thomas, Container Corporation of America, Philadelphia.
Chas. A. Tifft, Chemical Paper Company, Holyoke, Mass.
Mr. Toucey, Crane & Co., Dalton, Mass.
Daniel J. Walsh, Parker Young Company, Lincoln, N. H.
Fred B. Wells, Ohio Box Board Company, Rittman, Ohio.
S. Carroll Wentz, P. H. Glatfelter Company, Spring Grove, Pa.
M. M. Whitman, Marathon Paper Mills, Rothschild, Wis.
Almeron W. Wickham, MacAndrews & Forbes, Company, Camden, N. J.
Harry E. Weston, Chicago, Ill.
Frank E. Winslow, General Electric Company, Philadelphia, Pa.
Geo. K. Walker, Finch Pruyn & Co., Glens Falls, N. Y.
J. B. White, National Vulcanized Fibre Company, Yorklyn, Del.
A. G. Wightman, Knowlton Brothers, Watertown, N. Y.
Forbes Wood, Newton Paper Company, Holyoke, Mass.
O. V. Yates, Eaton Dikiman Company, Lee, Mass.
A. G. Adams, A. G. Adams Company, Chicago.
Earl Armstrong, General Electric Company, Pittsfield, Mass.
A. P. Atkins, W. E. Hooker & Sons, Philadelphia.
Frank Ball, Man. Rubber Manufacturing Company, Passaic, N. J.
E. N. Bechard, Eastwood Wire Corporation, Belleville, N. J.
Geo. F. Begnal, Balklin Manufacturing Corporation, Saratoga Springs.
F. E. Bentley, Noble & Wood Machine Company, Hoosick Falls.
N. A. Billings, Heller & Merz Company, Boston.
Harold Bing, Paper & Textile Machine Company, Sandusky, Ohio.
F. A. Blakelin, Emerson Manufacturing Company, Lawrence, Mass.
A. L. Bolton, John Balklin & Sons, Lawrence, Mass.
W. W. Bolton, John Balklin & Sons, Lawrence, Mass.
H. N. Booker, Hermann Manufacturing Company, Lancaster, Penn.
L. M. Booth, Booth Chemical Company, Elizabeth, N. J.
G. S. Brazeau, Appleton Machine Company, Appleton, Wis.
Adam E. Bridge, Shartle Brothers, Middletown, Ohio.
Wm. E. Buchanan, Appleton, Wis.
Stuart L. Burr, Waterbury Tool Company, Waterbury, Conn.
E. F. Burchjalter, Kalbfleisch Corporation, New York.
Raymond I. Cheney, Americaon Manufacturing Company, Lawrence, Mass.
Clark, A. B., F. O. Ross Engineering Company, New York.
F. M. Clark, General Electric Company, Pittsfield, Mass.
John Cornell, *The Paper Mill*, New York.
C. G. Dandrow, Johns-Manville, New York.
A. P. Davis, Oliver Filter Company, New York.
B. W. Dean, E. D. Jones & Sons, Pittsfield, Mass.
V. S. Denison, Paper & Textile Machine Company, Sandusky, Ohio.
D. A. Donnelly, Noble & Wood Company, South Bend.
J. H. Dow, Eastwood Wire Corporation, Belleville, N. J.
L. R. Dickinson, A. E. Staley Manufacturing Company, Decatur, Ill.
G. H. Dresser, Fabruka Belting Company, Boston, Mass.
Roger E. Edwards, Cheney Bigelow Wire Company, Springfield, Mass.
C. M. Eskelman, Cameron Machine Company, Brooklyn, N. Y.
Jacob Edge, Downingtown Manufacturing Company, Downingtown, Pa.
C. M. Eskelman, Cameron Machine Company, Brooklyn, N. Y.
F. C. Farnsworth, Farnsworth Company, Conshohocken, Pa.
F. E. Feld, Hinsdale Manufacturing Company, Hinsdale, N. H.
Jas. A. Foxgrover, Kalamazoo, Mich.
Wm. B. Fulton, Fulton Engineering, Inc., Middletown, Ohio.
D. R. Francis, Waterbury Tool Company, Waterbury, Conn.
Harry D. Frost, W. S. Tyler Company, Cleveland, Ohio.
Walter Geist, Allis Chalmers Manufacturing Company, Milwaukee, Wis.
W. L. Glass, B. F. Goodrich Rubber Company, Akron, Ohio.
Wm. A. Gocke, Shartle Brothers, Middletown, Ohio.
Otto J. Goeppinger, Waterbury Tool Company, New York.
B. N. Greenwood, E. C. Atkins & Co., New York.
Harry W. Griffin, Taylor Stiles & Co., Riegersville, N. J.
Rob't McGuie, Frankfort, Pa.
Jas. W. Hagar, Crane & Co., Dalton, Mass.
W. M. Hannum, Richard L. Cawood Company, E. Liverpool, Ohio.
W. H. Harding, Kalbfleisch Corporation, New York.
Walter G. Harte, Noble & Wood Machine Company, Hoosick Falls.
Ray E. Harter, Kalbfleisch Corporation, New York.
J. R. Hartman, Union Gas and Electric Company, Cincinnati, Ohio.
H. A. Harvey, Enterprise Machine Company, Middletown, Ohio.
Frank R. Henry, A. A. Simonds-Dayton Company, Dayton, Ohio.
H. A. Horstmann, General Dyestuff Corporation, Brooklyn, N. Y.
Raymond Himes, Manhattan Rubber Manufacturing Company, Passaic, N. J.
Allan Hyer, Black-Clawson Company, Hamilton, Ohio.
Thos. H. Ireland, Crane Company, Chicago, Ill.
Harry Jacqmin, Fort Howard Paper Company, Green Bay, Wis.
H. H. Jensenius, United States Rubber Company, New York.
A. J. Kennedy, Sandy Hill Iron and Brass Works, Hudson, N. Y.
A. J. Kennedy, Sandy Hill, Iron and Brass Works, Hudson Falls, N. Y.
Harry C. Kinne, Bagley & Sewall Company, Watertown, N. Y.
F. H. Knowlton, A. E. Staley Manufacturing Company, Boston, Mass.
Edw. Kormin, Heller & Merz, Chicago, Ill.
Warren J. Landfare, Appleton Wire Works, Appleton, Wis.
Walter F. Lauffert, Cling Surface Company, Springfield, Mass.
Ralph Lewis, Wm. L. Barrell Company, Boston, Mass.
A. Lippitt, International and Super Company, New York.

L. J. List, Samuel Langston Company, Camden, N. J.
A. C. Loomis, Heller & Merz Company, Springfield.
John H. Loomis, Heller & Merz Company, New York.
Allen A. Lowe, W. S. Tyler Company, Cleveland, Ohio.
Lawrence Lynd, John W. Bolkin & Sons, Lawrence, Mass.
Milton J. Maguire, Empire Size and Chemical Corporation, Albany.
R. K. McCluskey, H. & T. McCluskey & Sons, New Haven, Conn.
M. F. McCombe, Electro Bleaching Gas Company, New York.
C. E. Macklein, Beloit Iron Works, Beloit, Wis.
Geo. J. Maye, Appleton Wire Works, Appleton, Wis.
H. C. Mayhew, S. M. Langston Company, Camden, N. J.
O. J. Mills, Sandy Hill Iron and Brass Works, Hudson Falls, N. Y.
Don H. Montville, Shartle Bros. Machine Company, Middletown, Ohio.
Arthur J. Monro, Buffalo, N. Y.
W. P. Morris, Farnsworth Company, Conshohocken, Pa.
F. H. Morrissey, Shuler & Benninghofen, Hamilton, Ohio.
John A. Murray, Wm. O. Hardy & Sons, Fitchburg, Mass.
Raymond S. Murgatroyd, Wm. W. Bolton & Sons, Lawrence, Mass.
John M. Newton, Roland T. Oakes Company, Springfield, Mass.
John J. O'Brien, *The Paper Mill,* Boston.
H. B. O'Heir, Riordan Sales Corporation, Montreal, Que.
Jas. F. O'Toole, International Wire Works, Menasha, Wis.
F. W. Partsch, J. O. Ross Engineering Corporation, New York.
J. B. Pendleton, Manhattan Rubber Manufacturing Company, Boston, Mass.
G. M. Peterson, Cheney Bigelow Wire Works, Springfield, Mass.
David D. Piller, Cable Wire Manufacturing Company, Brooklyn, N. Y.
L. D. Post, *The Paper Mill,* New York.
Max Poyck, Heller & Merz Company, New York.
Elton L. Puffer, Heller & Merz Company, New York.
Geo. E. Pratt, Simonds Saw & Steel Company, Fitchburg, Mass.
H. M. Raub, Farnsworth Company, Conshohocken, Pa.
L. E. Randecker, Hammermill Paper Company, Erie, Pa.
A. M. Read, General Dyestuff Company, Providence, R. I.
Carl F. Richter, Paper Makers Chemical Company, Holyoke, Mass.
Richard L. Rice, Brown Company, Boston, Mass.
N. Rigabar, National Paper and Products Company, Carthage, N. Y.
H. A. Roberts, Philadelphia.
N. J. Robertson, Heller & Merz Company, New York.
E. V. Romaine, General Naval Stores Company, Cincinnati, Ohio.
Frank Sammett, Crane & Co., Dalton, Mass.
R. E. Sears, Shartle Bros. Machine Company, Middletown, Ohio.
J. J. Stafford, Neenah Paper Company, Neenah, Wis.
E. F. Stemmler, Allis-Chalmers Manufacturing Company, Milwaukee, Wis.
R. C. Stewart, Shartle Brothers, Middletown, Ohio.
H. W. Stratton, Manhattan Rubber Manufacturing Company, Boston, Mass.
A. A. Tanyane, PAPER TRADE JOURNAL, New York.
Alder R. Taylor, Wm. L. Barrell Company, Boston.
W. H. Theroux, Paper and Textile Machine Company, Sandusky, Ohio.
Mr. Toucey, Crane & Co., Dalton, Mass.
R. M. True, Crocker-McElwain Company, Holyoke, Mass.
E. F. Tucker, Canadian Stebbins Engineering Company, Montreal, Que.
R. N. Watts, Cheney Bigelow Wire Works, Springfield, Mass.
A. E. Wauch, U. S. Rubber Company, Philadelphia, Pa.
K. H. Ways, Brown Company, Boston, Mass.
W. J. Weed, Electro Bleaching Gas Company, New York.
Edwin C. Babbitt, Union Screen Plate Company, Fitchburg, Mass.
F. E. Bardrof, Cleveland Worm & Gear Company, Cleveland, Ohio.
W. A. Barrell, W. L. Barrell Company, Lawrence, Mass.
L. E. Bartlett, Cheney Bigelow Wire Works, Springfield, Mass.
Wm. E. Brown, American Wringer Company, Woonsocket, R. I.
A. L. Deolloqui, Holyoke, Mass.
J. C. Dieffendeifer, Paper Makers Chemical Company, Easton, Pa.
F. W. Drake, Lockport Felt Company, Newfane, N. Y.
John Durkin, Wilson Wire Works, Kearny, N. J.
R. R. Farwell, E. J. Dupont Company, Providence, R. I.
Otto W. Fuhrmann, Blanchard Press, Inc., New York.
John H. Hayes, The Waterbury Felt Company, Skeneateles, N. Y.
I. D. Holden, Vera Chemical Corporation, Stoneham, Mass.
Geo. K. Gibson, Mosinee Paper Mills Company, Chicago.
J. Gilbert Mason, Jr., Edgar Brothers Company, New York.
John A. Mathews, Crucible Steel Company of America, New York.
Carlo Moriondi, Milano, Italy.
A. W. Nicherson, Process Engineering Company, New York.
M. C. Osborne, Dilts Machine Works, Fulton, N. Y.
J. D. Petteys, Albany Felt Company, Albany, N. Y.
O. M. Porter, American Paper and Pulp Company, New York.
Andrew Purvis, Trotman Wire Company, Holyoke, Mass.
Wm. Sheehan, Albany Felt Company, Albany, N. Y.
Chas. J. Slack, Adirondack Mineral Company, Inc., Carthage, N. Y.
Ralph M. Snell, Paper Makers Chemical Co. Holyoke, Mass.
E. L. Tewksbury, Stone & Woodward Company, Newton, Mass.
Mr. Watney, *Pacific Pulp and Paper Industry,* Seattle, Wash.
H. D. Wells, American Paper Machinery Company, Glens Falls, N. Y.
W. Weston, American Wringer Company, Woonsocket, R. I.
A. Wiberg, Gilbert Paper Company, Menasha, Wis.
D. B. Williams, Paper Makers Chemical Company, Holyoke, Mass.
Henry H. Williams, E. D. Jones' Sons Company, Pittsfield, Mass.
F. M. Williams, Williams Apparatus Company, Watertown, N. Y.

News of the Wisconsin Industry

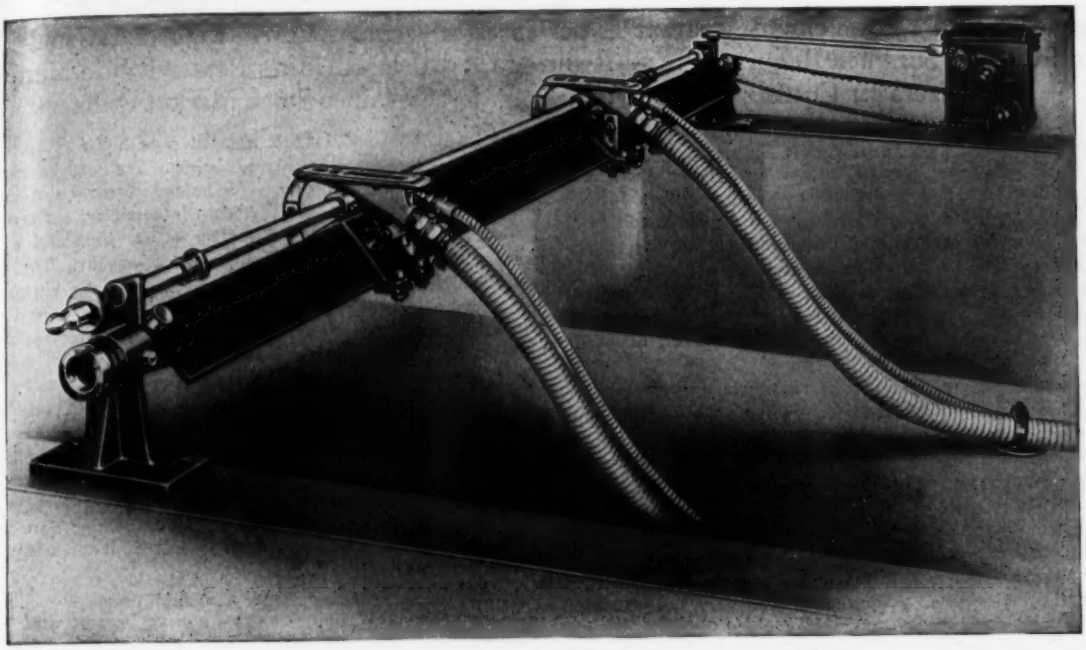
[FROM OUR REGULAR CORRESPONDENT]

APPLETON, Wis., June 4, 1928.—Use of the airplane to rush new products into production was tried recently by the Bay West Paper Company, of Green Bay, Wis. A new type of paper was produced for the company by the Mosinee Paper Mills Company, of Mosinee, Wis., and in order to find out quickly how it would react to the creping process, some of the paper was carried to Green Bay as soon as it was off the machine, creped and returned to the mill. This was done two days in succession, requiring only two hours for each complete trip and test. Two full days otherwise would have been occupied.

Sidney DuHaime has resigned as a floor foreman for the Victory Bag and Paper Company, of Menominee, Mich., and is leaving for the west, where he expects to obtain a position in one of the new coast mills. He was tendered a farewell reception at the company's offices and presented with a gift by his fellow workers.

Announcement is made of the death of Mrs. Arthur Bouffard, of Appleton, Wis., who died last week from injuries suffered in an automobile accident. She was the wife of the instructor in paper and pulp making of vocational schools in the Fox River Valley.

S. F. Shattuck, secretary of the Kimberly-Clark Company, of Neenah, Wis., has presented the city of Neenah with some valuable land to be added to the tract on which a new high school and gymnasium will be built. The tract has a frontage of 300 feet and a depth of 600 feet.



A Superintendent* Writes:

"The features that we like particularly about the Vickery Felt Conditioner are:

A clean felt at all times, insuring maximum water removal, minimum breaks, such as are caused by partially filled felt. Aids in producing a uniform flat sheet. Eliminating lost time for felt washing. Its positive action and full proof construction and last but not least the longer life it gives to felts." *Name on request.*

The Vickery Felt Conditioner

BIRD MACHINERY

BIRD MACHINE COMPANY : : South Walpole, Massachusetts

2016

Paper Trade Drifting Along in Philadelphia

Business Affected By Inclement Weather Experienced Recently Which Retarded Usual Preparations For Summer Requirements—Reduced Coal Prices Aiding Pennsylvania Manufacturers In Cutting Down Production Costs—Paper Stock Market Quiet

[FROM OUR REGULAR CORRESPONDENT]

PHILADELPHIA, Pa., June 4, 1928.—As the paper trade drifts along with a day to day demand for small purchases, there is a hesitant attitude on the part of consumers in preparation for the summer months. While quieter business is a normal condition at this season there has been lacking that usual demand for certain commodities required by manufacturers and merchants engaged in late springtime activities. This year the cooler days have retarded preparation for the hot weather and many manufacturers normally engaged in seasonal production have been holding off pending more settled conditions.

The low price of coal this year is aiding the paper manufacturers of the Keystone State who are within close proximity to the anthracite mines. The reduction of $1.50 per ton for anthracite has enabled the paper manufacturers to provide for the coming months' supply of fuel at attractive figures that will result in lower cost in production and possibly be passed on to the distributors in moderate recessions in the values of various papers where hard coal is used in the making.

Wholesalers of paper stock report a lack of interest among the mills for the majority of grades. There is very little activity among the commoner lines, the most demand being for book papers and ledgers, which are very scarce. There is an urgent demand for these two grades and with much effort to accumulate small quantities the wholesalers are able to meet the requirements of the manufacturers, shipments being made to the mills just as soon as stocks come into warehouses. The accumulation of the commoner grades is growing but if any sudden mill business should spring up there would be higher prices as the volume of stock is not up to normal. With the growing scarcity of book papers and ledgers and also the other grades of writing papers, higher prices are anticipated with the coming summer when mills begin to purchase their fall supply of raw materials.

N. A. Considine To Sail For Europe

With the return of President N. A. Considine, of the Paper House of Pennsylvania, to his desk at headquarters, 32 North 6th street, his Philadelphia paper trade associates and wide circle of friends are congratulating him upon his recovered health after a serious and prolonged illness from pneumonia. President Considine will sail on June 16 for a two months' sojourn in the Scandinavian countries and Germany, making the cross seas trip aboard the *Resolute*. He will tour Norway, Sweden and Finland after making a round of Germany. He will be officially recognized by the Finnish Government, it is understood, in confirmation of honors for his services as Finnish Consul in this country, while abroad.

Henry Atwater to Monage Sales of Reading Mills

Henry Atwater, who for several years has been connected with the A. M. Collins Manufacturing Company, of this city, is now associated with the Reading Paper Mills as sales manager. He succeeds William Maglathin, who last year took over the duties of sales manager with the Reading Mills after being associated with the William C. Hamilton Company mills, located at Miquon, near Philadelphia.

Riloff Paper Co. Moves

The Riloff Paper Company, formerly located at 20th street and Ridge avenue, has removed to 3114 Ridge avenue. The firm, of which Harry Riloff is head, deals in wrapping papers, bags, twines and paper specialties in the coarse grades.

Frank W. Berry Joins Satterthwaite-Cobaugh Co.

Frank W. Berry, who formerly was connected with the sales and advertising departments of the Dill and Collins Company, paper manufacturers, is now associated with the Satterthwaite-Cobaugh Company, 217 Chestnut street. He will be given an interest in the new company. His duties will cover the round of his former patrons in the Philadelphia territory. Previous to joining the Dill and Collins Company he was connected with the sales staff of the Raymond and McNutt Company. The Satterthwaite-Cobaugh Company has recently considerably expanded its business as wholesalers and paper distributors. The head of the firm, Howard Satterthwaite, is president of the Wholesale Paper Merchants Association of Philadelphia.

Bicking Mfg. Co. Progresses

There has been an excellent demand for asphalt lined papers produced by the S. Austin Bicking Manufacturing Company, of Downingtown, Pa. The opening of the building season has created a wide market for these roofing and sheathing substitutes, made under the K and B process. The asphalt lined papers are also in demand for packing purposes. The Bicking plant is now running on double shift, meeting the needs of the industry in the seasonal activity.

Lindsay Paper Co. Additions

Several new grades of fine papers have been stocked by the Lindsay Paper Company, 804-806 Sansom street, to augment those already carried. Among the latest of lines to be added are the Laurentian book papers made by the Reading Paper Mills, Reading, Pa.; Myriad and the Sheer Leaf Onion Skins made by the Chemical Paper Company and the firm's own brands of Opastone super and M. F., and the Linco mark of the same grades of paper. The firm is restocking the Bantam Manifolds of the Chemical Paper Company, which were discontinued for a time. With the expansion of the lines there has been acquired a stock of Manuscript cover papers produced by the Worthy Paper Company in white and a variety of colors.

Frederick Macey Joins Dill & Collins

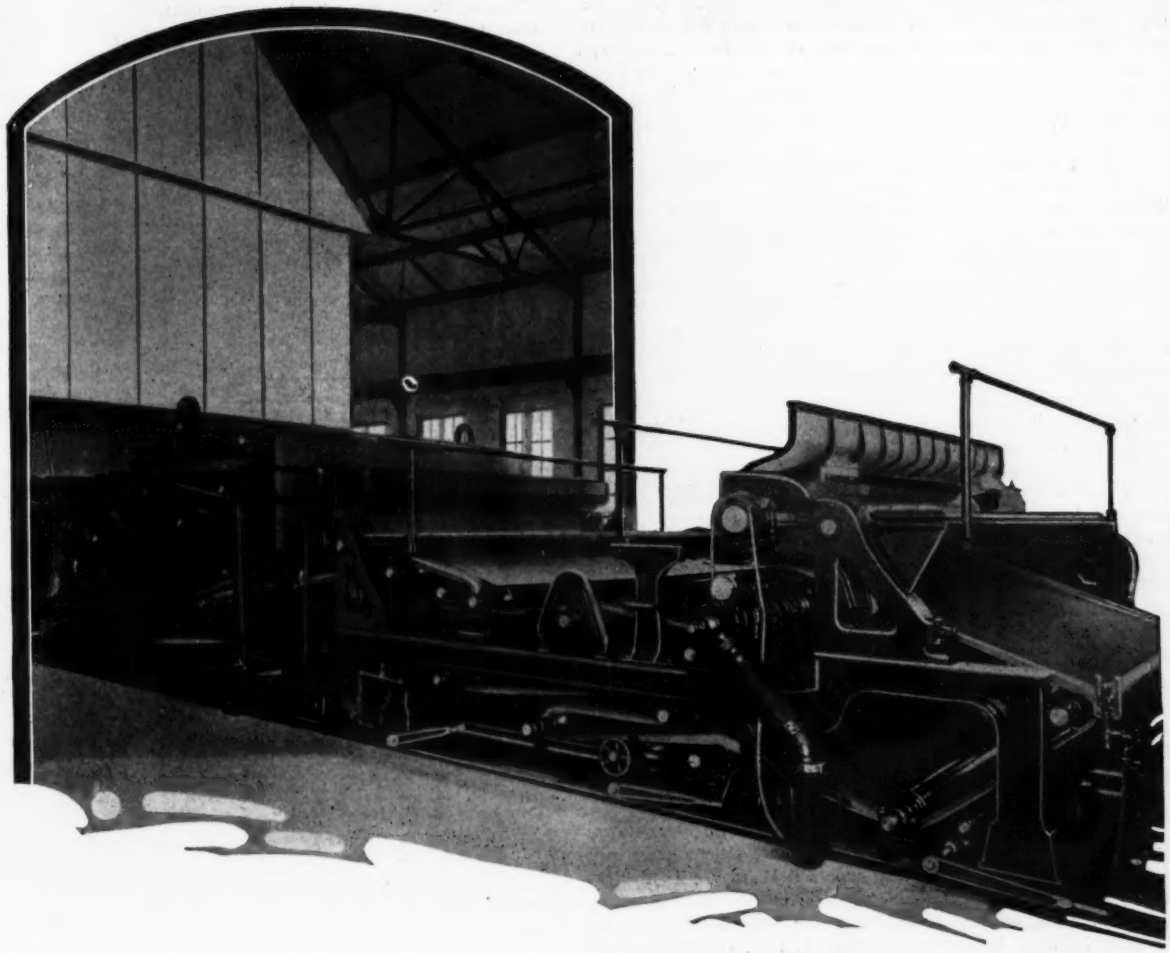
Frederick Macey, who has been associated with the Philadelphia branch of the American Writing Paper Company, with offices in the Bourse Building, has severed his connection with the concern to join the staff of the Dill and Collins Company. After two years' association with the Quaker City branch of the American Writing Paper Company he will become attached to the sales promotion of the Dill and Collins papers. He has been featuring the standardization work of the American Writing Paper Company.

Frank M. Sayford Co. Changes Management

With the retirement of Harland B. Greeson from the management of the Quaker City offices of the Frank M. Sayford Company, Inc., located in the Public Ledger Building, the duties of manager have been assigned to Philip J. McCoy, who was formerly in charge of the business here. Manager McCoy, after several years of association with the Philadelphia headquarters of the Sayford Company, was promoted to the New York main offices and plant as manager of sales. Dr. Greeson, who succeeded him, is to return to his profession of dentist. The Sayford Company features paper napkins, doilies, food containers such as butter chips, and other converted products. The main factory is located in Brooklyn.

John J. Costello & Co. Reorganizes

The paper stock and rag business which recently was organized by John J. Costello and Alvin J. Bloch, under the trade name of John J. Costello & Co., located at 48 North Front street, has been dissolved and the firm placed under the ownership of Mr. Costello. The concern is now known as John J. Costello, and will continue



Simplicity of Design

IN a paper machine, no matter how great the efficiency of design or operating features may be its service ability and investment value must always be gauged by its ruggedness. Upon its simplicity and strength depends its ability to make its advantages reliable, continuous and economical.

The illustration shows the press part of one of our latest developments, the Keystone Removable, Adjustable, Shakable Fourdrinier. This particular machine makes kraft and specialties at the Hinde & Dauch Mill, Trenton, Ontario, Canada. Note the Kilberry Suction Press Roll.

Investigation of Downingtown Machines (Fourdrinier and Cylinder) will disclose their rugged simplicity which is so essential for uninterrupted performance.

Our Products Meet Our Promises

KEYSTONE Fourdrinier

Downingtown Mfg Co. Downingtown Pa.

to conduct a rag and paper stock business at the Front street address. Mr. Costello has been associated with the stock market for many years and resigned as manager of the Penn Paper and Stock Company rag department to enter business with Mr. Bloch about a year ago. He has been linked with the trade for a score of years, having been identified with other local and out of town concerns.

E. H. Green Appointed Manager of Wm. Mann Co.

E. H. Green, who for 25 years has been associated with the William Mann Company, paper dealers, manufacturers and stationers, 529 Market street, has been appointed salaes manager of the company. He will direct the activities of the 32 salesmen on the staff covering every state east of the Mississippi River for the Mann company. The Wilson Mann Company for more than half a century conducted the paper mills located at Lambertville, N. J., which recently were sold to another paper manufacturing concern. The concern produces bank cheques and is one of the nationally known manufacturers of bank stationery and paper supplies used by financial institutions. Its business history extends back for more than 75 years.

Scott Paper Co. to Increase Stock

A special meeting of the Scott Paper Company stockholders has been called for July 11 to vote on the proposed increase in authorized preferred stock to $15,000,000 from $2,500,000. Holders of the present 6 per cent preferred will be given the privilege of exchanging their holdings, share for share, for Series A of the new issue which will bear the same dividend rate. The board of directors has called for redemption on August 1 all the present preferred stock, if any, which may not be exchanged. Series A preferred stock bearing 7 per cent dividends, is offered only to the holders of the present outstanding preferred. Other investors can secure only Series B preferred bearing 6 per cent, the notice to the stockholders states. The no par common stock was listed a short time ago on the Philadelphia Stock Exchange.

Diamond State Fibre Co. Centralizes Plants

For the purpose of centralizing its entire plant near Norristown, Pa., all the equipment and machinery of the Elsmere, Del., mill of the Diamond State Fibre Company will be moved to Bridgeport, Pa., according to announcement given out last week by Joseph A. Rank, official of the firm. The Diamond State Fiber Company holdings, located at Wilmington, Del., will be disposed of and the equipment will be moved to Bridgeport gradually and placed in the new building addition now under construction on the site of the present plant of the company. With the consolidation of the three plants the entire business of the Diamond State Fibre Company will be confined to Bridgeport.

Paper Box Association for Standardized Samples

A plan to standardize samples of paper sent out by paper distributors to box makers is being considered by the National Paper Box Manufacturers Association for the convenience and service of its members. The National Association in its May Bulletin states that the attention of the associate membership of the organization is to be called to the matter of regulating the size of samples of box makers papers so that they can be readily placed in specified sizes of filing devices. In its Bulletin the National Box Manufacturers Association gives the following information on standardized samples as proposed by the body:

"Many attractive paper samples are distributed at regular intervals to paper box manufacturers by the paper houses. Undoubtedly these samples are well received and serve a very useful purpose. The paper box manufacturer, however, is confronted with the problem of how best to preserve the samples and sample books.

"Our observation has led us to believe that no standardization has been attempted in the size of sample books, and they range all the way from 2- by 4-inch sample books, ¼ inch thick, to an individual sheet, 15 by 18 inches.

"Various methods of filing are now in use. None of them, however, permit the manufacturer to have access quickly to the sample books of the various manufacturers.

"The regulation letter file to accommodate 8½- by 11-inch sheets seems to be the preference of those who take the trouble to file them at all. It is suggested that the associate membership give this question consideration and make an attempt to standardize the size of samples."

Local Representation for Northern Engineering Works

The Northern Engineering Works of Detroit, makers of cranes and hoists, recently appointed the Interstate Supply Company, Commercial Trust Building, as direct factory representative for the Philadelphia district, W. H. Beyer, of the latter company, personally assuming charge of the account. Mr. Beyer is exceptionally qualified for this position from both technical and local standpoint, having been connected for about twelve years with the Philadelphia office of Manning, Maxwell and Moore. He has an intimate knowledge of local conditions, is personally acquainted with many of the leading engineers and manufacturing concerns in the district and is well versed from the engineering standpoint.

Box Board Production for April

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., June 4, 1928.—April production of box board, based on reports to the Department of Commerce by 91 firms operating 118 plants (reports for earlier months including four concerns now out of business) was 91.2 per cent of capacity, as compared with 87.7 per cent in March and 82.3 per cent in April, 1927. In the following table the capacity data vary according to the normal number of working days in each month:

Year and Month	Operation: Inch hours: Capacity	Operation: Inch hours: Operated	Operation: Per cent of Capacity	Production: Short Tons: Capacity	Production: Short Tons: Output	Production: Per cent of Capacity	New Orders: Short Tons	Unfilled Orders (end of month): Short Tons
1927—								
Jan.	9,997,400	6,998,505	70.0	240,175	173,629	72.3	194,285	105,669
Feb.	9,597,504	7,583,477	79.0	230,568	189,273	82.1	183,861	102,085
March	10,797,192	8,627,946	79.9	259,389	219,824	84.7	230,065	114,369
April	10,397,296	7,771,040	74.7	249,782	205,589	82.3	197,435	101,861
Total 4 mos.	40,789,392	30,980,968	76.0	979,914	788,315	80.4	805,646	.....
May	9,997,400	*7,836,315	*78.4	240,175	*200,216	*83.4	*194,122	93,248
June	10,397,296	*8,277,054	*79.6	249,782	*214,704	*86.0	*213,735	94,847
July	9,997,400	*7,490,184	*74.9	240,175	*191,379	*79.7	*213,938	115,097
Aug.	10,797,192	*8,962,402	*83.0	259,389	*234,269	*90.3	*228,943	112,763
Sept.	9,997,400	*8,752,272	*87.5	240,175	*227,114	*94.6	*237,441	120,331
Oct.	10,397,296	8,902,325	85.6	249,782	226,141	*90.5	221,548	105,600
Nov.	9,997,400	*8,367,362	*83.7	240,175	*214,310	*89.2	*185,567	76,471
Dec.	10,397,296	*7,523,600	*72.4	249,782	*187,748	*75.2	*179,852	74,430
Total year	122,768,072	*97,092,482	*79.1	2,949,349	*2,484,196	*84.2	*2,480,792	.....
1928—								
Jan.	9,997,400	*7,892,342	*78.9	240,175	*205,065	*85.4	*205,549	82,446
Feb.	9,997,400	*8,193,593	*82.0	240,175	*213,066	*88.7	*216,051	86,780
March	10,797,192	*8,855,782	*82.0	259,389	*227,573	*87.7	*245,753	*94,065
April	9,997,400	8,319,550	83.2	240,175	219,012	91.2	209,203	84,513
Total 4 mos.	40,789,392	33,261,267	81.5	979,914	864,716	88.2	876,556	.....

Year and Month	Shipments of boxboard: Short Tons	Stocks of boxboard, end of month: Short Tons	Consumption of waste paper: Capacity: Short Tons	Consumption of waste paper: Consumed: Short Tons	Per cent of Capacity	Stocks of waste paper, end of month: On hand: Short Tons	Stocks of waste paper, end of month: In transit and unshipped purchases: Short Tons
1927—							
January	175,528	53,562	232,825	163,337	70.2	163,023	38,062
February	189,032	53,327	223,512	182,322	81.6	158,222	40,602
March	217,876	54,566	251,451	209,730	83.4	155,513	43,789
April	209,944	50,211	242,138	189,942	78.4	147,938	46,314
Total (4 mos.)	792,380	.....	949,926	745,331	78.5	.....	.....
May	*201,788	48,906	232,825	*193,077	*82.9	149,438	59,289
June	*211,828	52,452	242,138	*207,187	*85.6	151,671	43,807
July	*195,635	49,519	232,825	*182,472	*78.4	151,094	51,520
August	*231,265	52,283	251,451	*229,130	*91.1	130,503	72,087
September	*229,874	43,115	232,825	*217,721	*93.5	127,649	53,875
October	228,222	41,863	242,138	220,974	91.3	128,443	65,008
November	*214,366	41,317	232,825	*204,836	*88.0	133,184	52,161
December	*183,928	42,610	242,138	*179,129	*74.0	145,549	34,512
Total (year)	*2,488,386	.....	2,859,091	2,379,857	*83.2	.....	.....
1928—							
January	*198,194	49,172	232,825	*190,631	*81.8	157,185	62,791
February	*211,687	50,490	232,825	*194,756	*83.6	142,723	60,918
March	*237,807	*40,424	251,451	209,806	83.4	139,775	47,582
April	218,214	40,312	232,825	209,634	90.0	132,719	47,551
Total (4 mos.)	865,902	.....	949,926	804,827	84.7	.....	.....

* Revised.

32 Faithful Servants of the Container Corporation of America...

CC of A
TRADE MARK REG. U.S. PAT. OFF.

MID-WEST
TRADE MARK REG. U.S. PAT. OFF.

The Container Corporation of America uses thirty-two Noble & Wood Jordans in its Manayunk, Philadelphia mill, its Red Bank, Cincinnati plant, and at Kokomo.

This Company has built a world-wide, enviable reputation for fine grade corrugated and fibre board containers and boxboard. Its consistently high production, in quality and quantity, demands high standard, efficient equipment. The big representation of Noble & Wood Jordans in its mills is a tribute to the sturdy dependability of these machines.

It is significant that the makers of quality papers of all kinds, from finest tissue to heaviest wall boards, turn to Noble & Wood. There's a place in your mill for this modern, high-production, cost-cutting equipment. Let our engineers show you where.

NOBLE & WOOD
MACHINE COMPANY
Hoosick Falls New York

Paper Business Fairly Satisfactory in Chicago

Demand for Wrapping Paper Well Maintained, With Supplies Moving Into Consumption in Good Volume—Various Grades of Paper Board Continue in Excellent Request—Competition Still Keen and Profits Are for Most Part Rather Small

[FROM OUR REGULAR CORRESPONDENT]

CHICAGO, Ill., June 4, 1928.—Memorial Day cut a substantial day out of the current business week and news in the Chicago paper market is rather scarce as a result. Many of the more fortunate executives in Chicago seized the mid-week holiday as an opportunity to go away for the remainder of the week. Spring weather has brought a fair amount of business into Chicago and a number of paper lines are much improved with the improvement expected to last until well on into the hot weather. Competition continues to be very keen and profits for the most part small. One of the main news items of the week as far as markets are concerned is the report that board is continuing in heavy demand and holds a very respectable position. The wrapping paper trade continues to be the best so far this year, according to reports, and local merchants and sales representatives expect this condition to continue for some time yet. The fine paper business is sluggish in spots but, on the whole, is in fairly satisfactory shape. The market is firm and prices steady. The demand is still strong for news print and a big production is being taken up in Chicago. Book and cover is fair with prices unchanged. Prices are also firm in the waste paper market with a good demand reported for book papers.

Improved Service for Champion Paper

The Chicago offices of the Champion Coated Paper Company, under the supervision of Bob Butterworth have recently announced a much improved shipping service between the mills at Hamilton, Ohio, and this market. A new train began operation on May 22, with delivery scheduled for Chicago on the next morning from 10:30 to 11:00 o'clock. The sales department reports that the service will probably be further expedited so that they will be in a position to accept orders for stock on hand already packed up to 11:00 a.m. to be forwarded the same day, thus putting the paper into Taylor street, Chicago, by noon of the next day. This improved service will be immensely satisfactory to the many buyers of Champion paper in this territory.

Marketing Committee Plan Delayed

Action on the plan of the Marketing Committee of the National Paper Trade Association has been further delayed according to reports from James Smith, chairman of the committee, who has just returned from a meeting of that committee in New York City. It is expected that the plan to market paper through the use of national advertising mediums and an educational program will be now further delayed until the Fall meeting of the association.

A number of Chicago paper men have expressed their regrets at again having action on the plan deferred. They point to the tremendous successes being staged by other Associations, many of them less powerful than the National Paper Trade Association when stating their belief that the plan should go into operation as soon as possible. "It is almost impossible to pick up a current publication without seeing some co-operative advertising of some group in the same trade trying to sell their product as a whole over the country," says one prominent Chicago executive. It is the sentiment of many Chicago paper men that something concrete should be done in the very near future.

News of the Trade

The Messinger Paper Company is meeting with exceptional success in acting as distributors for the latest line it has acquired, the papers manufactured by the Ticonderoga Pulp and Paper Company. The line is made up of the following: Special Magazine, Eggshell, Legal Book, English Finish, Special Cover, Machine Finish, Colonial Offset, School Text, Strong Bulk, Antique Laid, Music and Litograph. A well rounded stock in some of the grades will be carried in Chicago and the remainder of the attractive line will be supplied promptly from the mill. A sample folder containing specimens of printing done on India Tint English Finish has been mailed to the trade and is the subject of many favorable comments.

J. L. Stille, formerly manager of the Chicago branch of the Continental Paper and Bag Mills, has left Chicago to become sales manager of that company. J. M. Johnson is now the manager of the Chicago branch. Mr. Stille will be sales manager of a company having two plants in Maine, one in New Hampshire, four in New York, one in Pennsylvania, two in Wisconsin, one in Michigan and two in Canada. The Continental Paper and Bag Mills, controlled by the International Paper Company, make a complete line of wrapping paper, paperbags and tissues that is very popular in the Chicago market.

The next meeting of the Chicago Paper Association is not scheduled until the second Tuesday in June, according to reports issued from the office of the president of that organization.

The Salesmen's Association of the Paper Industry is increasing the popularity of its regular Monday meetings held at the Hamilton Club by making each event one of uniform interest. It is planned to have well known figures in the paper trade address this body at various times and other interesting attention getters are being arranged by this live wire organization.

Builds Machine for Dominion Boxboards, Ltd.

[FROM OUR REGULAR CORRESPONDENT]

TORONTO, Ont., June 4, 1928.—The Sandy Hill Iron and Brass Company, of Hudson Falls, N. Y., is building the new 7-cylinder machine to be installed in the plant which the Dominion Boxboards, Limited, is erecting on Toronto Bay, 500 yards from the Eastern Gap leading into Lake Ontario. The machine will trim 102 inches and be equipped with 114—48 inch dryers, 3 stacks of calenders, cutter and rewinder.

The beater room will be 96 by 120 feet and the machine room 50 by 417 feet. The warehouse for finished paper will be 68 by 138 feet and two stories high. The company has not yet decided on a raw stock warehouse, having made arrangements to have its raw stock delivered daily. The basement in the beater room affords ample storage for the raw sulphite and ground wood.

The paper machine will have a capacity of 100 tons of chip board daily and 75 tons of patent coated or bleached manila lined chip.

The company will take its water by gravity from the Bay and filter it and discharge the dirty water into the Cherry street trunk sewer which runs into the Toronto ship canal.

The site is about a half mile, as the crow flies, from the new Union Station and about three-quarters of a mile from the present plants of the Dominion Boxboards, Limited.

The company has about 8½ acres of ground and the plant is laid out for another board machine. It expects ultimately to move all its present activities to this new site.

With its present plant and the western plant, the company expects at the start to use about half the output of the mill.

service

DISTRIBUTORS OF GATOR-HIDE KRAFT

Anniston, Ala.
Ordway Paper Company
Asbury Park, N. J.
C. G. Winans Company
Asheville, N. C.
Southern Paper Products Co.
Atlanta, Ga.
American Mills Company
Baltimore, Md.
Dobler & Mudge
Birmingham, Ala.
City Paper Company
Boston, Mass.
Whitney Brothers, Inc.
Fort Hill Paper Company
Brooklyn, N. Y.
A. E. Mac Adam & Co., Inc.
Buffalo, N. Y.
Mugler & Umlauf
Charlotte, N. C.
Charlotte Paper Company
Cincinnati, Ohio
Merchants Paper Company
Columbia, S. C.
American Mills Company
Dallas, Texas
Texas Paper Co.
Dayton, Ohio
Buyer's Paper Company
Greensboro, N. C.
Old North State Paper Co.
Hagerstown, Md.
The Antietam Paper Company
Indianapolis, Ind.
Ostermeyer Paper Co.
Jersey City, N. J.
S. Safer, Inc.
Lancaster, Pa.
United Twine & Paper Co.
Little Rock, Ark.
Parlette Brothers, Inc.
Los Angeles, Cal.
Johnson, Carvell & Murphy
Louisville, Ky.
Miller Paper Company
Marion, Ind.
Osborn Paper Company
Memphis, Tenn.
Memphis Paper Company
Newark, N. J.
C. G. Winans Company
New York, N. Y.
Trinity Bag & Paper Co.
Paterson, N. J
Ribbon & Ticker Paper Co.
Philadelphia, Pa.
Garrett-Buchanan Company
Mather Paper Co., Inc.
E. Latimer, Jr.
Providence, R. I.
R. L. Greene Paper Co.
Rochester, N. Y.
Cramer-Force Company, Inc.
St. Joseph, Mo.
Sheridan-Clayton Paper Co.
St. Louis, Mo.
Orchard Paper Company
San Francisco, Cal.
Johnson Locke Mercantile Co.
Seattle, Wash.
Johnson-Lieber Company
Springfield, Mass.
H. W. Carter Paper Co.
Tampa, Fla.
Peninsular Paper Company
Trenton, N. J.
C. G. Winans Company
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Tulsa Paper Company
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Main Sales Office: 100 East 42nd Street, New York City

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Contract Prices Break in News Print Market

International Paper Co. Now Signing Contract Orders For Forthcoming Year At Reduction of $3 Per Ton—Two Organizations Withdraw From Canadian Newsprint Co. and Another Gives Notice—Selling Association Will Not Dissolve, However

[FROM OUR REGULAR CORRESPONDENT]

MONTREAL, Que., June 4, 1928.—Except as a frank recognition of conditions that have long existed in the news print industry, no great importance is attached here to the announcement that the International Paper Company is signing contracts for news print at a reduction of $3 per ton. It is said that while the price charged by all Canadian companies has been nominally $65 per ton, as a matter of fact much news print has been supplied below that figure, and even where invoices have been at $65 per ton, various concessions, including allowances for freight have often been made. It is due to these facts, doubtless, that there has been a shake-up in the Canadian Newsprint Company. The withdrawals from that company already forecast in the PAPER TRADE JOURNAL are now officially confirmed. Brompton Pulp and Paper Company, of Brompton, Que., and Anglo-Canadian Paper Company, of Quebec, have both withdrawn, and it is admitted that notice of withdrawal has been given by Price Bros. & Co., of Quebec. The Canadian Newsprint Company, however, has not been dissolved, and will not be dissolved, it is announced.

The pessimistic outlook in the news print industry has been reflected during the past week in a slump in the price of practically all news print stocks. Opinion as to the future is divided. In view of the various new plants still in process of construction it is believed that the industry is in for a prolonged period of price competition which will lower profits generally and force some of the smaller companies to the wall. On the other hand, there are those who think that present conditions will give added stimulus to the movement for mergers and consolidations by which much great power will be possible in the control of output and maintenance of prices.

Abnormal Flood Around Lake St. John

At the time of writing the most serious floods in the history of the region are raging in the Lake St. John region, with a general dislocation of trade, and the possibilities of great damage to the interests of the Lake St. John Power and Paper Company, Price Brothers & Co., Port Alfred and Quebec Pulp and Paper Mills Corporation. The floods have interrupted railway service and several of the mills have been unable to ship for some days. At present, however, the most serious aspect is the possibility of the companies losing a large portion of their logs. For instance, Price Bros. & Co. have something like $1,500,000 worth of logs in their booms, and it is only with the greatest difficulty that these are being kept from being swept away. At River Bend the government ordered the closing of the sluice gates in order to protect the 15,000,000 feet of lumber held back in the boom there. Lake St. John itself is reported to have risen 13 feet above normal height, and water is roaring down the outlets into the Saguenay River in appalling volume. At the time of writing it is thought that the flood has reached its peak, and that from now on there will be an improvement, but Indians coming in from the woods above report that snow from four to six feet in depth still exists over large areas, the melting of which will keep the water high for a long time. Many people in the various villages have had to vacate their homes, row boats and rafts being the only means of transportation.

Four New Mills for New Brunswick

Dealing with the expansion of the pulp and paper industry in New Brunswick, Premier J. B. M. Baxter announced at a banquet in his honor at St. John, N. B., during the week that a capital expenditure of between $30,000,000 and $40,000,000 in the Province would be involved during the next few years.

The program, the Premier said, would include two new mills to be erected by the Canadian International Paper Company, one a two-machine news print plant at Dalhousie, on the Restigouche River, capable of extension to four machines within four or five years, and a 100-ton sulphite pulp plant next year, on the Miramichi River. These two projects, he added, would require a capital expenditure of at least $20,000,000 with another $5,000,000 for working capital.

At Athol, on the Restigouche River, near Campbellton, the Fraser Companies, Limited, have decided to erect a sulphite pulp mill costing in the vicinity of $4,500,000, while at Millbank, on the Miramichi, the same company proposes either to erect a new 100-ton pulp mill or extend their present plant to a capacity of 100 tons per day, at a cost of about two and a half million dollars. Extensions, already commenced at Edmundston, will bring the total production of the Fraser plant there up from 40,000 tons to 117,000 tons per year, Premier Baxter said, and the Bathurst Company, Ltd., at Bathurst, was now doubling its capacity by the addition of a second news print machine.

These projects, with the expenditure of development of Grand Falls for hydro power, would bring the immediate capital expenditure on the industry in the Province up to between $30,000,000 and $40,000,000 with these plants in operation, the Premier pointed out, the entire output of power at Grand Falls would be taken up.

That the Province is to have another mill, in addition to those announced by Premier Baxter, is indicated by the purchase of a parcel of land by the International Paper Company near St. Leonard, and the registration of options on adjoining territory, the whole covering some 100 acres.

The site in question is located at the mouth of the Grand River, which taps the New Brunswick railway lands, and is almost directly across the St. John River from the Keegan, Maine, mill owned by the Aroostook Pulp and Paper Company, a subsidiary of the International Paper Company, which has not been operated for the last two years.

Word reaching Edmundston from St. Leonard is to the effect that the International proposes to build a combined ground wood and sulphite pulp mill at the St. Leonard site and to pipe the pulp across the river in a manner similar to that employed by the Fraser Companies at Edmundston.

The plan then is, reports say, to manufacture the pulp into paper at the Keegan plant which is to be rehabilitated.

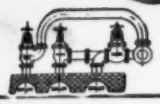
It is regarded as probable that the Dominion Government will withdraw its appropriation of $300,000 for the dredging of a channel into Ellis Bay, Anticosti Island. Last year Parliament voted $150,000 toward the work and the $300,000 was to complete it.

Objection to the appropriation was taken in Parliament by Major C. G. Power, member for Quebec South, who said that the Anticosti Corporation gave no indication of an intention to colonize the island and from this he argued that expenditure on the harbor would be solely for its benefit and not in the general interests of Canada. He told the Commons that the corporation ruled the island in a monarchical-like manner, keeping the inhabitants in a condition almost of peonage and refusing to allow citizens of Canada to set foot there without a permit. The only law on Anticosti was the law of the corporation and any offender against the law or the pleasure of the company was summarily deported.

The Minister of Public Works advanced in justification of the

(*Continued on page 62*)

Don't Let a Burst Tube or a Steam Pipe Shut Down Your Plant



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Elbow Angle Globe Patterns

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Patent Automatic Double-Cushioned

Triple-Acting and also Non-Return Valves

"No Shutdown when a tube ruptures"

"No Explosion when a pipe bursts"

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7. The only valves that can be tested in service from boiler room floor.
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9. Cannot pound, spin, stick, or chatter.
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Minn. & Ontario Paper Co.
Champion Coated Paper Co.
Finch Pruyn & Co.
Crown-Willamette Paper Co.
Spruce Falls Power & Paper Co.
Grays Harbor Pulp Co.
Kimberly-Clark Co.

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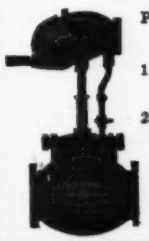

Pat. Automatic Cushioned Controlling Float Valve

1. Automatically maintains uniform level in heaters, tanks, etc.
2. Air and water cushioned.
3. No metal-to-metal seats.
4. No waste of water.
5. No water hammer or shock.
6. Angle or Globe patterns to 24 in.

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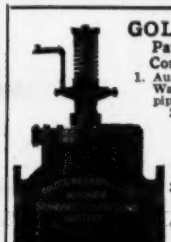

Pat. Cushioned Automatic Controlling Altitude Valves

1. Automatically Maintain Uniform Water Levels in Tanks, Standpipes, Reservoirs, etc.
2. For High or Low Pressure. Always Dependable.
3. No Floats or Fixtures used.
4. No Water Hammer or Shocks.
5. Sizes up to 24 in.

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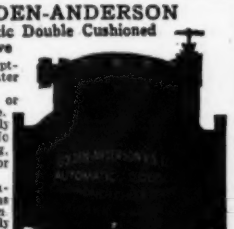
Pat. Automatic Double Cushioned Check Valve

1. Especially adpted for Water Service.
2. For High or Low Pressure.
3. Thoroughly Cushioned. No Chattering, Hammering, or Sticking.
4. Globe or Angle Patterns up to 30 in.
5. Especially adapted for hydraulic elevator service.



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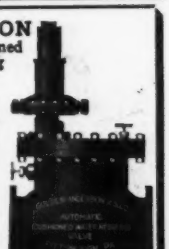
Pat. Automatic Cushioned Water Pressure Regulating Valves

1. Maintain a constant reduced pressure regardless of fluctuations on high pressure side.
2. Perfectly Cushioned by water and air. No metal-to-metal seats.
3. The best valve made for maintaining a constant low pressure where consumption is continuous.
4. Operates quickly or slowly as required—No attention necessary.
5. Positively no Hammering or sticking. Sizes to 24 in.



GOLDEN-ANDERSON

Pat. Automatic Cushioned Steam Pressure Reducing Valves

1. Maintain a constant reduced pressure.
2. Thoroughly cushioned.
3. No hammering, chattering or sticking.
4. No auxiliary valves or small by-passes to clog up.
5. No wire drawing.
6. Only one adjustment from the outside.
7. Double extra heavy throughout—practically indestructible.

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Pat. Automatic Cushioned Water Float Valves

1. Automatically Maintain Uniform Water Levels in Tanks, Standpipes, etc.

2. Instantly Adjusted to Operate Quickly or Slowly.
3. Floats Swivel to any Angle—Most satisfactory Float Valve Known.
4. No Metal-to-Metal Seats—No Water Hammer or Shock.
5. Cushioned by Water and Air.

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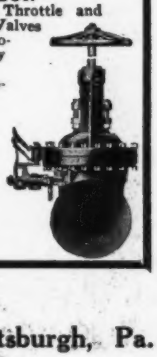
Pat. Cushioned Combined Throttle and Automatic Engine Stop Valves

1. Operate 3 ways: Automatically, by Hand, or by Electric Switch.
2. Prevent Fly-wheel Explosions.
3. "Double Corliss" Cushioned—No Pounding or Sticking.
4. Contains No Tight Fitting Parts.
5. Furnished in Angle and Globe Patterns for high or low pressures.
6. "Always Ready for Service."



"Hosts of References"

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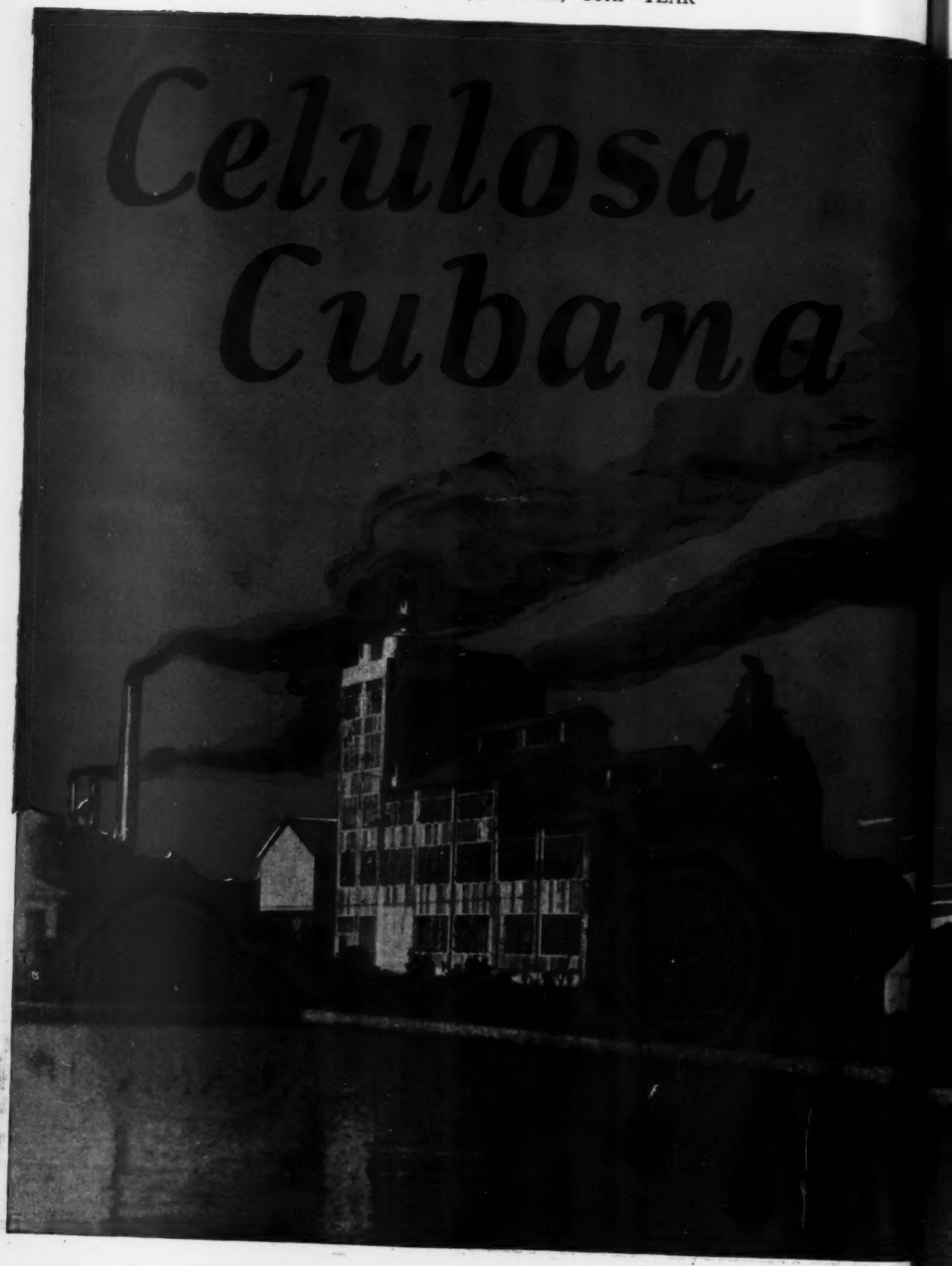
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A New Raw Material that will lower your stock costs
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Expansion of Paper Box Industry in Canada

New Organization Plans to Erect Large Plant in Toronto and May Establish Factories in All Provinces of Dominion—Development Follows Purchase of Canadian Wirebound Boxes, Ltd., of Toronto and Montreal, By James Playfair, of Midland, Ont.

[FROM OUR REGULAR CORRESPONDENT]

TORONTO, Ont., June 4, 1928.—A public offering of $650,000 preference shares in connection with the Corrugated Paper Box Company, Ltd., Toronto, is being made. The shares have a par value of $100 and carry 7 per cent fixed cumulative dividend. Three shares of common will be given with each ten shares preferred. On completion of this financing the Corrugated Paper Box Company, Ltd., and its wholly owned subsidiary, Hilton Bros., Ltd., Winnipeg, will operate two of the most modern and efficient plants in the Dominion devoted to this particular industry. The companies manufacture a broad range of corrugated and solid fibre shipping containers which are used in practically every trade for the shipping of goods up to 90 pounds in weight. For some years past there has been a rapidly expanding demand for this type of packing unit, as it enables a considerable saving to be effected in freight charges, and lessens the amount of storage space required. These advantages accrue through the collapsible feature of the container prior to use. It is interesting to note the growth of the Corrugated Paper Box Company, Ltd. In 1913 a small plant in Toronto, operating as the Corrugated Paper Company, Ltd., was taken over by J. S. A. Whealy, who is president of the new company, and the change in name was then made. A constructive policy of expansion, largely financed through earnings, was adopted from the outset, and in 1915 the plant on Geary avenue, Toronto, was built. Subsequent additions were made in 1916, 1917 and during the fall of 1919. Wider demand in Western Canada for corrugated paper shipping containers made it an economic necessity to manufacture at a central point in the West, and with this end in view, early in 1926, an interest was acquired in Hilton Bros., Ltd., and a new and larger factory erected on Wall street, Winnipeg. The latter company moved into their new plant in October, 1926, and as a result of the ensuing year's operations, production was increased nearly fourfold. Even more significant of the expansion of the business is the fact that whereas in 1913 the total volume of business amounted to $30,000, the net earnings of the two companies combined last year were $106,526.75. It is understood that the first quarter's earnings this year are $19,818.04 ahead of those for the corresponding period in 1927.

To Build New Paper Box Plant

A large business deal, involving between one and two million dollars, was closed in Toronto a few days ago whereby James Playfair, of Midland, Ont., has purchased the Canadian Wirebound Boxes, Ltd., of Toronto and Montreal. A new company will take over the plant in both cities, which include the wirebound box and the corrugated paper and box factories on Notre Dame street in Montreal and the wirebound box factory at 1000 Gerrard street East, Toronto. Real estate, plant equipment, good will, etc., are included in the deal and the transfer of all the assets to the new company, which will be a stock proposition, will mean considerable future extensions to the business by the incorporation of new capital. Under the present plans it is proposed to build a new $400,000 plant in Toronto, which will include a wirebound box factory and a corrugated paper and box factory, while plans for the future will likely provide for the establishment of plants in all of the provinces of the Dominion.

Back in 1915 L. A. De Laplante, president of the vending company, who was formerly in the lumber trade started the business on a small scale, and since then it has been built up to its present proportions. In Montreal the wirebound box plant has been operating since 1920, and the corrugated paper and box factory since last November. All the plants in both cities are using 2½ acres of floor space, and the two wirebound box factories turn out 12,000,000 boxes a year. Between 300 and 350 employees are connected with the present company. A. J. Laplante, vice-president, and A. M. Dunn, general manager, will be actively connected with the new company.

The Death of Harry Judson Crowe

In the death of Harry Judson Crowe, which took place in Toronto a few days ago, there has passed away one who played a leading part for years in the development of the pulp and timber trade in Newfoundland. Born 59 years ago in Halifax, Nova Scotia, Mr. Crowe first took an active interest in lumbering and pulpwood operations in his own province, but it was not long before he branched out into Newfoundland. It was largely through his efforts that the Anglo-Newfoundland and Development Company established its plant there, and had it not been for Mr. Crowe's efforts Lord Northcliffe and his company would not have gone there for their supply of pulp and paper. The International Paper Company, of New York, was also introduced into Newfoundland by Mr. Crowe, who sold his property to them. He did much philanthropic work in Toronto since coming here some years ago. He was an ardent Imperialist and in promoting the commercial progress of Newfoundland he suggested that the colony be included in the Canadian Federation. He was also a strong advocate of political union between Canada and the British West Indies. Mr. Crowe is survived by his wife and one son, James Fitz-Randolph and two brothers, J. F. Crowe, of London, and F. M. Crowe, of Calgary. His eldest son, Laurence, who was in the Royal Naval Air Force, lost his life while on active service in the Great War.

Notes and Jottings of the Trade

Construction work has started on a branch factory in Windsor, Ont., for the London Shipping Containers, Ltd., of London, Ont. The plant will represent a structural cost of $30,500 and the work will be completed late in July when about fifty men will be employed. Machinery to the extent of $20,000 will be installed.

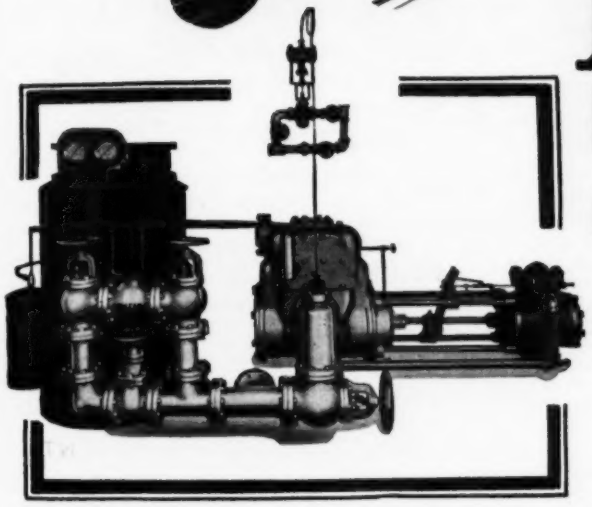
Dr. J. H. White, of the Faculty of Forestry, University of Toronto, accompanied by Mrs. White, has left Toronto for an extended visit to Great Britain, Sweden and Finland. While in those countries, it is Dr. White's intention to study their forestry methods and, in fact, to do considerable investigation work. The questions of reforestation and conservation in European countries will engage his attention during part of his stay abroad.

The Wayagamack Pulp and Paper Company, at Three Rivers, has just completed a large wharf on their property bordering the St. Lawrence River. It will be used principally to unload pulpwood brought by the steamer from their timber limits on Anticosti Island. The wood will be unloaded from the steamer or barges by two large derricks equipped with jaw grab hooks and discharged to a long water flume which will carry it to the log pile conveyor. The wharf is of ample size also to allow large steamers to be loaded with paper and pulp produced by the mill.

About fifty teachers from various parts of the Dominion attended a convention recently held at Shawinigan Falls and in-

Why certainly!

Fulton had a Hand in making these Records



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(30 hours without a break)

62½ Hours on another Non-Stop Run

You feel that everything has to be right when a high speed news machine reels off 360 miles of paper without a stop or break. You KNOW it's so when another spins off twice as much, twelve car loads, 62½ hours without a break.

In both mills, a Fulton Dryer Drainage installation played an important part, kept the paper machine dryers right up to scratch. Such runs could never have been made with an inferior dryer drainage system.

You are not getting the dryer results without a Fulton Dryer Drainage System that you would get with one. Don't take our word for this. Visit some mill so equipped and ask questions. Also write us.

The Fulton Engineering Company

Middletown, Ohio, U. S. A.

Western Rep. Woodbury & Wheeler Co., 55 2nd St., Portland, Oregon, U. S. A.

Fulton

Dryer Drainage Systems

spected the power and paper plant of the Laurentide Company where they saw the spruce logs being unloaded from railway cars and conveyed by automatic conveyors to the mill, the logs being ground into pulp and made into paper as they viewed the various processes.

That the personnel of the Southern kraft mills is alive to the need for education is evinced by the fact that as a result of a trip made recently to mills in Louisiana and Arkansas, 86 men were enrolled by T. N. Crossley, pulp and paper engineer, of Toronto, in a course being supplied by the industry in Canada. Of these, 27 were in the Bogalusa Paper Company, Bogalusa, Louisiana, 23 in the Bastrop and Louisiana mills of the International Paper Company at Bastrop, and thirty-six in the Camden, Arkansas mill of the International Paper Company. The course is conducted from Graden City, Que.

The Toronto Envelope Company, tenants in the Hobberlin Building on Adelaide street West, Toronto, suffered considerable damage to plant and stock by a fire which broke out in the building.

Many members of the Toronto wholesale paper trade attended a dinner meeting of the Toronto Typothetae at the Prince George Hotel on May 29 when the chief speaker was R. T. Porte, of Salt Lake City, an authority on matters pertaining to the printing industry. A. L. Lewis, president of the United Typothetae of America, presided at the gathering, which was largely attended.

Peter Christie, manager of Division "B," Provincial Paper, Ltd., at Winnipeg, was a visitor at the head office in Toronto this week.

George Carruthers, of the Interlake Tissue Mills, Ltd., attended a meeting in Montreal this week of the Technical Section of the Canadian Pulp and Paper Association at which arrangements were completed for the general meeting of the section at Port Arthur at the end of June.

Using a Canadian-made paper of better quality than heretofore, and similar to the stock used by American telephone companies, the Bell Telephone Company of Canada has just issued its new Toronto directory. The paper is lighter in weight and has a much better printing surface than the paper in the old directory.

G. E. Legg, of Shanghai, China, was in Ontario calling on paper men recently with a view to forming a connection in China and Japan for Canadian papers.

The establishment of a waste paper department by the Toronto Typothetae revealed the wide variety of prices the paper and printing houses of Toronto were getting for their waste paper. Twenty-eight reports have so far been received and these showed variations in prices from the dealers of 65 cents to $2.50 for No. 1 hard; No. 2, 40 cents to $1.50; No. 3, 3 cents to $1.10. Details are being worked out which will provide for the proper grading and classification of waste paper by the paper houses in co-operation with the dealers and collectors and when the department is thoroughly organized many thousands of dollars will be saved to the paper and printing houses of the city.

A. Curtis, first vice-president of the Canadian International Paper Company, was in Fort William and Port Arthur a few days ago. He said that they had sites to choose from in those cities for the establishment of their new paper mill, as well as at Nipigon, but nothing definite would be decided until a little later. It is stated that the plant will cost ten or twelve million dollars. Actual construction will not start until the coming fall. Those who accompanied Mr. Curtis on his visit to the head of the lakes were W. Hinman, superintendent of woodlands, and General Wood, one of the vice-presidents of the Canadian International Paper Company.

One of the best known paper salesmen in Ontario passed away suddenly at Hamilton, Ont., last week in the person of Peter Smith, who for about 25 years had been a member of the sales staff of the Lincoln Pulp and Paper Company, Ltd., Merritton. The late Mr. Smith was 61 years of age and was known to the trade throughout the province, particularly in Western Ontario and the Niagara Peninsula, which territory he covered for the Lincoln company. His remains were taken to his native city of Guelph for burial.

C. E. French, of the Toronto office of the Howard Smith Paper Mills, Ltd., an old Royal Flying Corps man, had his initial flip in the air this week as a new member of the Toronto Flying Club, during which he spent fifteen minutes split airing over the home of Arthur Hobson, of Willodale, another Howard Smith employee.

R. C. Brown, of the Kimberly-Clark Company, Neenah, Wisconsin, called on the trade in Toronto last week in company with representatives of their Canadian agents, Paper Sales, Ltd.

C. Howard Smith, head of the Howard Smith Paper Mills, Ltd., Montreal, was a business visitor in Toronto a few days ago.

Robert Currie, of the Dominion Paper Company, Montreal, called on the Toronto paper trade last week.

H. A. Goldsbrough, head of the Toronto office of the Hodge-Sherriff Paper Company, has returned from a business trip through the Canadian West to the Pacific Coast. His company are selling agents for Wayagamack kraft paper, for which, Mr. Goldsbrough says, there is an increasing demand throughout the western provinces.

PRICE BREAK IN NEWS PRINT

(*Continued from page 56*)

expenditure the fact that the company was spending two million dollars on the harbor and it would be a supply base for ships in the Gulf. Major Power, however, insisted that the corporation had no claim on Parliament. It had paid six millions for the island, he said, and sold securities to recover the money and was now asking the country to pay interest on it. He would want some proof that the corporation was going to colonize and not merely strip the island of its timber and then depart, before he would withdraw his opposition.

From criticizing this proposed expenditure Major Power branched out into an attack on large Quebec corporations in general, which, he said, were running far too often to Ottawa and Quebec for financial assistance. He charged that some of them were endeavoring to "throttle the economic, moral and social life of the province of Quebec," and declared that it was time they should be told by Parliament and the Legislature to desist. "We will support them so long as they wish to develop the province, but when strangers and foreigners come and dictate to us what shall be our course of conduct, I think we should call a halt," he said.

Canadian Association In New Quarters

The executive offices of the Canadian Pulp and Paper Association and of its subsidiary bodies are now located in the new Pulp and Paper Research Institute, 3420 University street, Montreal.

Good Safety Record Interrupted

[FROM OUR REGULAR CORRESPONDENT]

APPLETON, Wis., June 4, 1928.—An accident last week in which Leo Belaire, an employee, burned an arm severely put an end to the achievement of a long safety record by the two mills of the Marinette and Menominee Paper Company, of Marinette, Wis., and Menominee, Mich. The company is enrolled in the no-accident campaign of the National Safety Council and was trying for a championship record. This was the first lost time accident since January 28, and the total run of 119 days is the longest the company has had. The Menominee mill still is in the running, however, with a splendid record. The safety record among the 200 employees has been 100 per cent since October of last year, and strenuous efforts are being made to finish the month of June without a break. The Park mill at Marinette is the one which has lost out.

LOOK SOUTH

BASTROP, Louisiana: "Gator-Hide Kraft" four big machines, and Dilts New Type beating engines.

CAMDEN, Arkansas: (International Paper Co.) Two 212" Kraft Machines, and Dilts New Type Beaters.

HODGE, Louisiana: (Advance Bag Company,) widest machine in the United States, 242" on kraft, and Dilts New Type Beaters.

TUSCALOOSA, Alabama: (E-Z Opener Bag Co.) 230" Kraft Machine and Dilts New Type Beaters.

"Your Paper is made in your Beaters"

Dilts

MACHINE WORKS, Inc. FULTON, N.Y.

EXPORT OFFICE ~15 PARK ROW~ NEW YORK CITY

Work of the Gummed Kraft Tape Committee*

By L. J. Marshall

First of all I want you to know that I am not here to address you on "High Lights on selling Kraft Sealing Tape by a Paper Merchant." Believing that you gentlemen are pretty well posted on this subject, and as time is precious, knowing that you have more busines to transact, I am going to get right down to "brass tacks" on the subject that is uppermost in the minds of the N. P. T. A. gummed kraft tape committee, and of which I happen to be chairman.

Our committee has been in existence about two years, and was created for the purpose of stabilizing the all important item of gummed kraft tape. You are aware that up to about two years ago paper merchants paid very little attention to the merchandising of tape for the reason that the percentage of profit was small. At that time a scientific method of merchandising was introduced, and the merchants learning of the change, were eager to push the sale of the item in question.

Owing to keen competition in the last few months there has crept in a tendency to lower the grade, and instead of having a No. 1 gummed kraft tape, we have all the way down to that which may be termed No. 2, No. 3 and possibly lower grades of this item.

Not many paper merchants are able to judge the quality, but when their attention is called to the inferior quality of glue, as well as paper, then again the shortage in yardage and shortage in width, by the trade to whch they sell this item, the merchants then wonder what is going to be the outcome, and what progress our committee has made in trying to standardize gummed kraft tape. Up to the present time there has been no set standard on which to judge whether one brand or kind of tape is as good or better than others, and so our committee comes with the idea of helping you, as well as ourselves, in setting up qualifications that will represent that which is termed *"No. 1 gummed kraft tape."*

The question immediately arises—How is this to be obtained? Well, some time ago the conditions that surrounded the manufacture of tissue paper, toilet paper and bags, were more deplorable than in which your industry is today, and to save your industry from going backward instead of forward, we suggest the following method:

First of all, we understand that there is a gum tester (McLaurin) on the market that is recognized as a standard by which the sticking quality can be tested. By adopting this mechanism it is easy to determine whether the glue you are putting on your tape is of the best grade or not.

You can set a standard as to the basis weight of paper that is to be used in the manufacture of different widths. It is easy to standardize what shall constitute 1, 1¼, 2 or 3 inches as the case may be: also how many feet a coil should contain.

After you have set up qualifications as to that which would constitute a No. 1 article, you then proceed in taking the matter up with the U. S. Department of Commerce, and with the help of transportation companies, the merchants and manufacturers, sitting in conference with the representative from the Department of Commerce, your item in question is then standardized, and subject to the approval of the Department of Commerce, their stamp of quality which will be in the shape of a label can then be put on every bundle of Gummed Kraft Tape. The difference in cost to the consumer, whether he uses a large or small quantity, is so little that in the opinion of the N. P. T. A. Committee there is room for but one kind of gummed kraft tape and that is only a No. 1 grade.

Since the World War the U. S. Department of Commerce has been engaged in trying to simplify and standardize an unlimited number of items. This is being done to eliminate waste and cut down overhead cost.

The following is taken from the Monthly News Bulletin of Commercial Standards Group which includes—Division of simplified practice; Division of Specifications; Commercial Standards Unit; American Marine Standards Committee.

"Rising costs of doing business are said to be hurting profits, and intensive selling methods are said to be responsible for the current upward trend in distribution costs. The defense of these methods is that keen competition, hand-to-mouth buying, and idle production capacity make them necessary.

However justified this defense may be, the fact is the larger the mass to be moved, the greater the effort to move it; the greater the inertia, the greater the force to overcome it. This natural law is evidently as applicable to the disposal of our factory output as it is to the displacement of a granite boulder. As the total output of our factories increases, greater selling effort becomes a necessary part of the process of getting that output into the hands of the ultimate consumer. The greater the variety offered the public, the greater must be the effort to sell it. We may, therefore, expect an increase in the cost of distribution, but recognition of mass-distribution as the result of mass-production does not compel the blind acceptance of present distribution costs, nor of present "over-diversification" in product.

"If excessive variety and increased costs of distribution absorb the economies of mass-production, either profit must be sacrificed to selling price, or price must be raised to protect profit. Investors will resist the one course, consumers the other. Furthermore, it has been generally recognized that it is more advantageous to increase total profits by reducing prices to the consumer,—at the same time maintaining or *improving quality*,—and thus secure increased sales volume, than it is to try to increase profits by raising prices.

"Current discussion may be summed up thus,—consumers want lower prices, invested capital wants a fair return, costs of distribution are rising,—production costs are about as low as present variety of product, equipment for making it and current wage rates will permit. What is the way out?

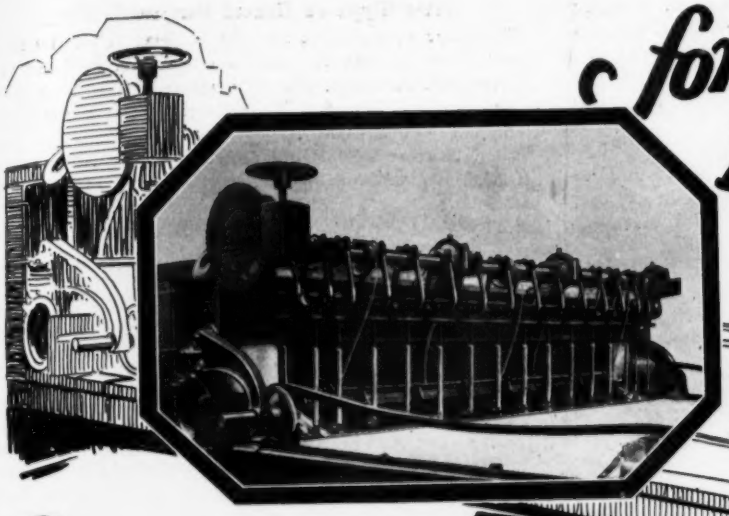
"There are many avenues open. To catalog them all calls for a treatise on Management, but we suggest Simplifications as the starting point. Simplification ordinarily means elimination of unnecessary variety in sizes, dimensions, or line numbers. It can be applied to models, patterns, colors, styles, and also price ranges. It means concentration of production and selling effort on those varieties in proven greatest demand. Simplification throws the burden of the odd or seldom-wanted variety of the individual who demands it and thus frees those who produce, sell or buy the simplified line from the waste of needless variety.

"Simplification is a means by which producer or distributor can be assured of sufficient variety to meet the majority demands of his trade. It is the means by which the consumer can be assured of reasonable variety without excessive cost. Studies of many fields show 80 per cent of the business in almost any line of goods is done on 20 per cent of the varieties in which that line is offered. Then why carry the "idle" 80 per cent of variety?

"Simplification has been applied by individual manufacturers, merchants and purchasers; it has also been applied by them in groups, with marked success. Data on hand show reduced inventory, quicker turnover, increased sales volume, lower costs of doing busines, lower production costs, better profits, and lower prices, as results of simplification.

"If all, who could, would "throw overboard" that 80 per cent of the variety they now carry and which brings them but 20 per cent or *less* of their annual business, and then concentrate all their pro-

* Address delivered before the meeting of the Gummed Industries Association, Chicago, May 23, 1928.



for Increasing Profits from your Paper Machines

The VOITH INLET will do it

Without sacrificing the quality of your paper the Voith Inlet will do for you what it is doing for 110 mills operating 234 Inlets. It is helping reach minimum operating costs on the Straight Fourdrinier, Harper and Yankee machines—operating on many grades and many kinds of paper.

Its initial cost is low compared to its performance.

Some of the operation savings—

Wires last 10% *to* 15% *longer*
Fewer shutdowns of machines from breaks
Insures paper of uniform caliper
Fewer lumps and foam spots
Use of more wire surface for formation purposes.

The Voith Inlet is equipment mills cannot afford to do without this year. It is equipment that will help you earn profits out of operating costs.

Investigate the Voith Inlet! Perhaps the experience of mills now using the Voith Inlet will interest you? We'll send you complete information upon request. Write for it now.

VALLEY IRON WORKS CO.

Machinery for Paper and Pulp Mills

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Western Manufacturing & Sales Division, Smith & Valley Iron Works Co.
Portland, Oregon

duction, sales and advertising efforts on the 20 per cent of variety that yields them 80 per cent or *more* of their annual business, making a profit in this era of falling prices would be more of a pleasure than a struggle."

To illustrate that which the Department of Commerce is trying to convey, I would cite the following:

A reduction of inventory was made by one of the leading chain store organizations whose total sales for 1927 amounted to $270,000,000, *and who only imported* 5 *per cent* of the goods sold over the counter, through standardization and simplification have eliminated more than 600 of the articles carried three years ago.

In the paper industry we now have a standard cubical content by which every size of bag is measured. You can, however, make a No. 5 or No. 10 grocery bag larger than the required cubical content as set forth by the Department of Commerce, but you cannot make it less and have their stamp of approval on the package.

I have here a few leaflets that set forth the standards for tissue paper. Take for instance the sizes of tissue paper for shoes—we have four sizes, whereas before we adopted the standard there were in the neighborhood of between 15 and 20 sizes, and many times a Shoe Manufacturer bought a 12x24 and only received 11½x24 or 12x23½ or even 11x23, although he purchased and paid for 12x24.

We might also cite toilet paper. On the tissue sheet toilet paper put up in packages there is but one size recognized, and that is 5 x 7. In roll toilet, 1000 and 2000 sheet rolls, the basis weight is 24x36—480 sheet count, 10 lb., and the sizes are 4½x5, 4½x4¼ and 4½x4½. The cases in which these rolls are packed are the only ones that have the stamp of approval or label of the Department of Commerce. I have two labels here, one taken from a case of toilet paper and one from a bundle of tissue. When a consumer or retail merchant purchases tissue that has been standdardized by the Department of Commerce, and it carries the label which is a guarantee, he is not only satisfied but protected in receiving size, count and weight as well as quality.

Our committee believes that the problem confronting this body is just as much our problem as it is yours, and if we can overcome that by standardizing Gummed Kraft Tape, we have made a step forward in protecting the Public, the Merchant and the Manufacturer.

There are two ways of conducting a business. There is the "Highway" and the "Byway". He who wants to continue in business and build up a name, whether he be a Manufacturer, Merchant, or Retailer, he must follow the *Highway*. If, on the other hand, he is in business today, and possibly on the road to elimination in the not far distant future, then his course is to follow the *Byway*.

We sometimes give little thought as to the outcome when we side-step an issue, but gentlemen, you have it in your power to put the Gummed Kraft Tape Industry on the same high plane as is enjoyed by Manufacturers of innumerable articles.

In closing let me say—if you want the confidence of the public that consumes your article, standardize on that which is a No. 1 quality.

Our committee stands ready to assist you in every possible way to standardize gummed kraft tape, and suggest that you adopt a label that carries the stamp of approval of simplified practice, U. S. Department of Commerce.

Pacific Coast Paper Carton Co. Formed

SAN JOSE, Cal., May 31, 1928.—The Pacific Coast Paper Carton Company, organized to manufacture paper crates, was incorporated here last week for $44,030.

The founding of the company resulted from an idea of G. R. Gregg, of 440 Coe avenue, as to the folding of paper to form a carton. Mr. Gregg invented a paper carton for packing and shipping eggs, fruit and other perishables. One piece of corrugated paper, cut and folded, forms not only the carton but the partitions in which the perishable article is packed.

New Type of Beater Engine Is Used

The beater equipment at the Camden plant of the International Paper Company, says the *Arkansas Engineer*, published by the University of Arkansas, was manufactured by the Dilts Machine Works, Inc., of Fulton, N. Y., and consists of six new type fast circulating beating engines.

These beaters of the new type which has attracted such wide attention are built with cast iron tubs, inclined concrete bottoms and with rolls of 72-inch diameter by 60-inch face. They are driven by Texrope sheave drives, and the installation is of high grade throughout and quite in keeping with the balance of the equipment in this truly remarkable modern Kraft paper mill.

The "broke" from the paper machines and the trimmings from the winders are also handled in Dilts New Type beating engines of their Continuous type. These are placed in the basement beneath the finishing end of the machine and the trimmings and "broke" are spouted down into the Continuous beaters through openings in the machine room floor and without labor.

In the Camden mill, turning out as it does a high quality of Kraft paper, the need of good beater equipment is fully recognized. It is the Dilts' slogan that "the paper is made in the beaters" and appreciating the soundness of that statement the management of the Camden mill has sought to equip the plant with the "last word" in beater efficiency. Hence this selection of Dilts New Type Beaters.

In the Dilts New Type beating engine the roll is located toward the rear end of the tub. The stock traveling beneath the roll and over the backfall is immediately deflected around the end of the tub and into the back channel by means of a specially designed backfall shaped something like a plough-share or a high banked curve.

This New Type design of tub, deflecting hood and backfall utilizes the power that is applied to the roll in propelling the stock immediately around the end of the tub. This power is not exhausted in driving the stock some distance before it reaches the end of the tub, there to be turned into the back channel as in the older type of beater. The result in the Dilts New Type beating engine is faster circulation and mixing of the stock, and as there is no speeding up of the roll or lifting the stock over an excessively high backfall there is no increase in power consumption in accomplishing this increased circulation.

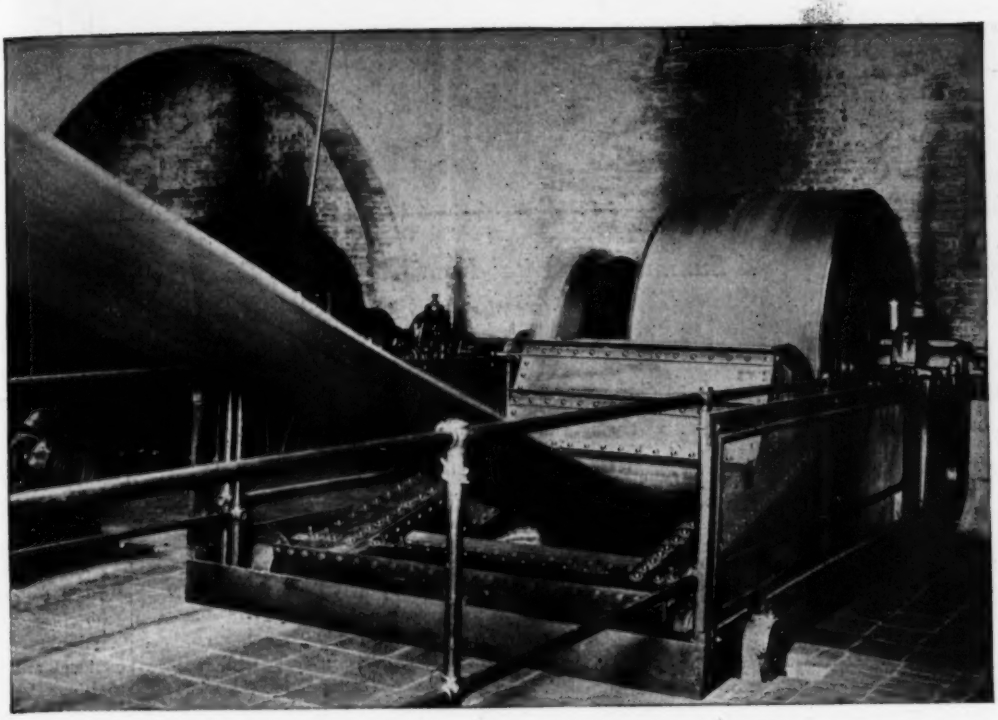
In a modern mill such as this great Camden plant, it is most essential that the beater equipment be able and ample to properly prepare the pulp stock for the paper machine. These beaters constitute a very vital link in the chain that carries through from the standing timber in the forests to the finished paper loaded into the cars and these eight Dilts New Type beating engines are a very strong and dependable link indeed.

United Kingdom Installing Sulphite Plants

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., June 6, 1928.—It is thought that possibly there has been a reduction in the output of sulphite papers in the United Kingdom during the first quarter of the current year, according to a report to the Department of Commerce from London. Some of the larger plants are reported to have recently installed esparto plants and are turning to the manufacture of high grade esparto papers.

There is a definite indication, says the report, of improvement in trade generally, however, and the consensus of opinion is that the production of these papers will be well maintained during the next three months. Prices have declined during the past few weeks and continue to show a downward tendency. For ordinary wood free printing papers quotations are around 5½ cents per pound, less 2½ per cent discount, large quantities being quoted at approximately ¼ cent per pound less. A slight discount would undoubtedly be allowed for exceptionally good business. Cream laid and wove writings are generally about ¼ cent per pound higher.



Here is a 1,400 hp. engine driven line-shaft where the LENIX provided these three advantages: Eliminated costly belt stretch by providing proper tension, increased the capacity by 40%, permitted use of narrower belt.

More Power
To That Line Shaft

WHERE a single prime mover is the source of power for a line shaft, all the power needed should be transmitted. Often, it is not. Belt conditions, distance between centers, pulley ratios make it impossible.

To remedy such a situation, the LENIX Short Center Belt Drive offers a definite advantage. Generally, it can make existing drives produce more power.

For the LENIX provides not only more belt-pulley contact but just the right amount of added contact.

This, coupled with improved belt conditions, makes the line-shaft drive smoother and more productive. Of the 9,000 LENIX Drives already installed, many of them are for line-shaft drives.

Consider the LENIX for your plant. Our engineers will be glad to recommend the proper unit. In writing, send the operating data and if possible, sketches of the present drives.

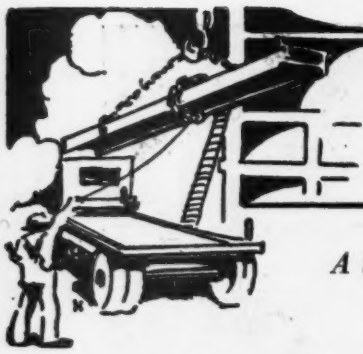
F. L. SMIDTH & COMPANY

Engineers Incorporated 1895

225 Broadway, New York, N. Y.

The LENIX *Drive*

Reg. Trade Mark



CONSTRUCTION NEWS

A Summary of Vital Facts Regarding Construction, Finances and Operation of Paper Mills

Construction News

Neenah, Wis.—The Bergstrom Paper Company has plans in progress for the construction of a new addition to power plant at local mill, one-story, reported to cost close to $80,000, with equipment. It is proposed to take bids on general contract within 30 to 60 days. Orbison & Orbison, 110 West College avenue, Appleton, Wis., are engineers. N. H. Bergstrom is treasurer.

Detroit, Mich.—The F. L. Bromley Properties, Inc., 6531 Russell street, has asked bids on general contract for a new two-story and basement building, 190 x 222 feet, with one-story boiler house, on Milwaukee avenue, to be used as a paper goods storage and distributing plant. It is estimated to cost more than $175,000, with equipment. Albert Kahn, Marquette Building, Detroit, is architect and engineer.

Nekoosa, Wis.—The Nekoosa-Edwards Paper Company is reported to have preliminary plans under advisement for the construction of several additions to its local mill, including alkali room, diffuser department, wet room, wash room, recovery room and finishing division, to cost more than $1,500,000, with equipment. E. P. Gleason is company engineer. J. E. Alexander is general manager.

Buffalo, N. Y.—The Barre & Howell Paper Corporation, care of Jewett F. Barre, 228 South Cayuga Street, Williamsville, N. Y., recently organized by Mr. Barre and associates, with capital of $30,000, plans operation of local plant for the production of wrapping paper, tissue papers, etc., with complete distributing facilities. George W. Howell, 58 Dewey avenue, Buffalo, will be an official of the new organization.

Walpole, Mass.—Bird & Son, Inc., manufacturer of paper roofing and other products, has begun the construction of an addition to power division, and will install coal-handling and conveying equipment, etc. Estimated cost not announced. Monks & Johnson, 99 Chauncey street, Boston, are architects and engineers.

North Little Rock, Ark.—The Southern Paper Box Company, 106 Cumberland street, A. Karcher, president, is said to be considering construction of a new local plant, to be one and two-story, reported to cost more than $28,000, with equipment. It is understood that architect will be selected at early date.

Long Island City, N. Y.—Fire, May 24, at the plant of the Ravenswood Paper Mill Company, 545 Van Allst avenue, caused slight fire loss, including equipment and stock. An official estimate of amount has not been made. The damage will be replaced.

Wheeling, W. Va.—The United States Corrugated Fibre Box Company, 17th street, is said to be arranging for early construction of a proposed new plant addition, to cost approximately $100,000, with equipment.

New York, N. Y.—The Protecto Box Corporation, care of David Levkoff, 135 West 36th street, New York, recently organized by Mr. Levkoff and associates, with capital of $10,000, is said to be planning early operation of local plant for the manufacture of paper boxes, cartons, etc. Samuel Seiff, 169 Beach 124th street, Rockway Park, L. I., is also interested in the new organization. These same interests, it is understood, will be connected with the Garment Protector Corporation, recently organized at Augusta, Ga., to operate a plant in that city for manufacture of special folding boxes and cardboard containers for garment service. The projected Augusta plant is reported to cost close to $40,000, with equipment.

Polson, Mont.—Designed to furnish service to present and projected paper mills in this section, the Rocky Mountain Power Company, Polson, has made application to the Federal Power Commission for permission to construct and operate a hydro-electric power plant on the Flathead River, below Polson, reported to cost in excess of $1,000,000, with transmission lines.

Hartford City, Ind.—The Hartford City Paper Company, is completing plans and will ask bids at once for the construction of a proposed new addition to its plant for warehouse and distributing service, to be one-story, reported to cost close to $30,000, with equipment. Lockwood, Greene & Co., 400 North Michigan avenue, Chicago, Ill., are architects and engineers, and estimates will be asked from that office.

Rockford, Ill.—The Mid-States Envelope Corporation, 500 North Madison street, recently formed with capital of $70,000, will operate a local factory for manufacture of envelopes and other paper specialties. New company is headed by Edward J. Hansen, and John G. Petritz.

Los Angeles, Cal.—The Paraffine Companies Inc., Brannon street, San Francisco, manufacturers of paraffine papers and other products, has acquired a controlling interest in the Vitrefrax Company, Los Angeles, and will exercise active management in the future. The acquired interest specializes in refractory products.

Oswego, N. Y.—The Oswego Board Company, manufacturers of paperboard products, an interest of the St. Regis Paper Company, is maintaining full capacity schedule at its new local mill recently placed in service, with production on a basis of about 200,000 feet of finished material per day. A full working force is employed. The company proposes to maintain present operating basis for an indefinite period.

Sandusky, Ohio—The Paper and Textile Machinery Company, Sandusky, has approved plans for the construction of a new addition to its local plant, to be 40 x 200 ft., reported to cost in excess of $150,000. The unit will be equipped for demonstration of the new Millspaugh suction roll process of paper production. Work will soon begin.

Windsor, Ont.—The London Shipping Containers, Ltd., 745 York street, has begun the construction of a new plant unit on Hall street, to be one-story, brick and steel, 126 x 150 ft., reported to cost about $60,000, including equipment. A general contract has been let to the Clark Company, Ltd., Windsor, Ont.

Montreal, Que.—The Abitibi Power and Paper Company, Ltd., operating the Manitoba Paper Company, Ltd., Murray

Savings Proved

ROSS-GREWIN
High Pressure Ventilation
For Pulp and Paper Drying Machines

Records from the mills now operating this high pressure system, show conclusively that it is capable of reducing pressure in the dryers materially. Thin jets of warm air, blown at high velocity into pockets, the currents introduced alternatively from both sides of the machine, not only entirely absorb the vapor, but secure even drying across the sheet. The small supply pipes do not interfere with the attending of machine and naturally require minimum space, power and heat for the comparatively small volume of air used. Effective, efficient, economical.

We are prepared to furnish actual records of remarkable savings being effected as well as improved and increased production being secured. Write us — no obligation.

Important Economical Factors

Uniform Dryness of Sheet.

Comparatively Small Initial Cost for Installation.

Saving in Steam Consumption of 7% to 10% or corresponding increase in production.

Smaller Felt Cost.

Smaller space, heat and power requirements.

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208 W. Washington Street, CHICAGO — Main Office, 30 E. 42nd Street, NEW YORK — 303 Lumbermens Bldg., PORTLAND, ORE.

ROSS ENGINEERING OF CANADA, LIMITED

NEW BIRKS BLDG., MONTREAL

ROSS SYSTEMS

HEATING—VENTILATING—DRYING

Bay Paper Company, Ltd., the Spanish River Pulp & Paper Company, Ltd., and other interests, is disposing of a preferred stock issue to total about $10,000,000, a portion of the proceeds to be used for expansion and betterments, and general financing. The group of interests has an annual output of 650,000 tons of newsprint. Alexander Smith is president.

London, England—The Inveresk Paper Company, Ltd., London, operating the Koholyt Corporation, Berlin, Germany, producer of unbleached sulphite pulp, is arranging for financing for the last noted organization, and will soon offer a bond issue of close to $4,000,000, a considerable portion of the proceeds to be used for general expansion and improvements in properties.

New Companies, Etc.

San Francisco, Cal.—The Pacific Coast Pulp & Power Corporation, care of the Corporation Service Company, Equitable Building, Wilmington, Del., has been incorporated under Delaware laws, to manufacture paper and pulp products, and operate power utilities. The company is capitalized at $500,000, and 10,000 shares of stock, no par value.

Wilmington, Del.—The Gulf States Paper Corporation, care of the Corporation Trust Company of America, duPont Building, Wilmington, has been chartered under state laws, with capital of $2,500,000, and 250,000 shares of stock, no par value, to operate mills for the production of paperboard, fibre board, and kindred products.

Milwaukee, Wis.—The Dralle-Bauer Paper Company has filed notice of increase in capital from $10,000 to $25,000, for general expansion.

Leominster, Mass.—Edmunds, Inc., has been incorporated with capital of $55,000, to manufacture and deal in paper boxes and containers and kindred products. Clarence J. Edmunds, 37 River street, is president and treasurer.

Watertown, N. Y.—The Coty Bag Corporation has arranged for an increase in capital from 800 to 5500 shares of stock; of new issue 500 are preferred, with par value $100., and 5,000 no par value. Proceeds will be used in part for expansion and financing.

New York, N. Y.—The Arcturus Paper Corporation, care of J. A. Brady, 551 Fifth avenue, New York, principal incorporator, representative, has been incorporated with capital of $10,000, to manufacture and deal in paper products.

Chicago, Ill.—Pick-uick Card Service, Inc., 154 East Erie street, has been incorporated with capital of $5,000, to manufacture and deal in card stocks for filing and other service. The incorporators are J. W. Dienigan, and George D. Adams. Company will take over and expand present organization of similar name.

Kalamazoo, Mich.—The Western Paper Makers Chemical Company, a Delaware corporation has filed notice of increase in capital from $5,000,000 to $8,000,000, for general expansion. The company is affiliated with the Paper Makers Chemical Corporation, Easton, Pa.

Paper Mill Employment Decreases

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., June 6, 1928.—There was a decrease in both employment and payrolls in the paper, pulp and paper box industries in April compared with March, according to the Bureau of Labor Statistics, Department of Labor.

Reports were received by the Bureau from 212 paper and pulp mills which gave their March employment at 57,220, decreasing in April to 56,846, a decrease of 0.7 per cent. The payrolls in these mills also decreased from $1,554,589 in March to $1,533,856 in April, a decrease of 1.3 per cent.

The Bureau also received reports from 180 paper box factories which gave their March employment at 19,652, decreasing in April to 19,215, a decrease of 2.2 per cent. The payrolls in these factories also decreased from $436,843 in March to $424,635 in April, a decrease of 2.8 per cent.

To Avoid Overlapping Specifications

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., June 4, 1928.—An effort is now being made by the Federal Specifications Board to work out some plan that will be satisfactory to the various government departments in connection with the overlapping of paper specifications. This is the matter which has caused considerable inconvenience to paper manufacturers and was mentioned editorially a few weeks ago in PAPER TRADE JOURNAL.

It is now being proposed that the chairman of the Federal Specifications Board issue a bulletin having in view the elimination of a duplication of work which has existed for several years between the Paper Specifications Committee of the Joint Committee on Printing of Congress and the Technical Paper Committee of the Federal Specifications Board.

It has been pointed out that under the authority of the Printing Act of 1895 and the Act of June 7, 1924, the Joint Committee on Printing of Congress annually adopts standard specifications for the purchase of all paper and envelopes for the public printing and binding by the Government Printing Office and for all blank paper and for envelopes not printed in the course of manufacture used by the government establishments in this city.

These specifications, so far as applicable, have been adopted by the Federal Specifications Board for the paper required by the field services of the government.

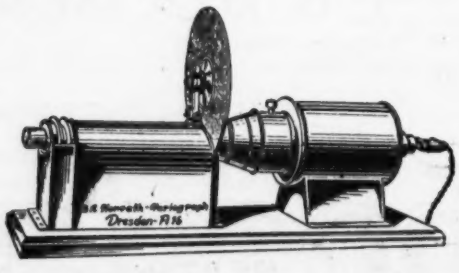
The proposal is, which has not yet been promulgated, that the Federal Specifications Board will not issue any more the Master Paper Specifications for any of the paper covered by the Joint Committee on Printing. For the information of purchasing officers and of bidders, when these specifications are printed or mimeographed separately by any government organization they will bear the statement that they conform to the specifications fixed upon by the Joint Committee on Printing.

The Federal Specifications Board will prepare Master Specifications for special paper and paper products not covered by the standards fixed upon by the Joint Committee on Printing.

As stated above this program has not been officiallly sanctioned and there is a chance that it will not be. It is understood that the Federation Specifications Board will ask the Joint Committee on Printing to put its mark on their specifications. It is a forgone conclusion that the Joint Committee will not agree to any such thing. There the matter rests for the moment, but it is expected some kind of an agreement will be worked out in the course of a few weeks.

The Variograph

The Variograph, an unusual machine represented in the accompanying illustration is a pattern designer which permits the operator to make new designs or form any ideas or motifs he likes on a circular disc. It is mechanically adjusted so that whatever motifs are desired for any pattern purpose whatever, can be reproduced perfectly. It is said that this decided innovation in a de-



THE VARIOGRAPH

vice of this nature will prove of great importance to the designers of the many units especially produced by the paper trade. The Variograph is distributed by Variograph Company of America, 254 Fourth Avenue, New York.

MADE OF TONCAN COPPER Mo-lyb-den-um

IRON ADDS YEARS OF SERVICE

TONCAN, the super-iron which resists rust and corrosion longer than any similar metal used in the manufacture of pipe, is now the basis of Naylor **SPIRAL-WELD** Toncan Iron Pipe which assures trouble-free service and four to fourteen times longer life for paper mill conveyance lines.

Toncan is pure iron, scientifically combined with copper and mo-lyb-den-um to form a rust and corrosion resisting metal of such qualities as never before attained in a commercial iron. It is light in weight for ease and economy of shipping, handling and installing. It is not materially affected by rust and corrosion from acids and alkalies, which so quickly destroy pipe of other materials.

Toncan Copper Mo-lyb-den-um Iron is a metallurgical achievement. In all kinds of sheet metal applications it resists rust and corrosion, the ravages of severe weather conditions, or heating and cooling that cause ordinary iron to fail rapidly.

The new Toncan book, "The Path to Permanence," is valuable to manufacturers who desire complete information on this super-iron. Send for it.

Toncan Iron is available in sheets, plates, bars, strips, seamless tubes and wire, and finds an ideal application—because of its unusual rust and corrosion-resisting qualities—on paper machines and beater hoods, filter housings, save-all tanks, digester drums, perforated screens, and for roofing and siding on buildings.

CENTRAL ALLOY STEEL CORPORATION, Massillon, Ohio

Cleveland Detroit Chicago New York Philadelphia Tulsa Los Angeles Seattle Syracuse St. Louis San Francisco Cincinnati

WORLD'S LARGEST AND MOST HIGHLY SPECIALIZED ALLOY STEEL PRODUCERS

New York Trade Jottings

G. A. Ware, of the News Print Service Bureau, has returned from an inspection tour of the Northern New York paper mills.

* * *

The White Paper Company, dealers in paper, cardboard and specialties, are now located in new and larger quarters in the President Monroe Building, 111 Crosby street, New York.

* * *

L. I. Hertz, recently with the Continental Paper and Bag Mills Corporation, in charge of coffee bag sales, has joined the ranks of the Oneida Paper Products, Inc., Brooklyn, New York

* * *

W. G. MacNaughton, of the News Print Service Bureau, leaves New York next Saturday to inspect the Pacific Coast news print plants. During his trip Mr. MacNaughton will also visit several Canadian paper mills. He expects to return to headquarters, 341 Madison avenue, New York, by the middle of August.

* * *

Effective June 1, Philipp Moll, formerly sales manager of C. H. Boehringer Sohn, Hamburg, and Nieder-Ingelheim on Rhine, and more recently vice-president and sales manager of the Dissosway Chemical Company, became associated with the Roessler and Hasslacher Chemical Company, of 709 Sixth avenue, New York.

* * *

W. E. Zielie, who for the past six years has been sales representative of the American Manufacturing Company in Western Pennsylvania, Western New York, Ohio, West Virginia and Kentucky, has resigned from that organization to represent the Aiax Rope Company, Inc., of 117 Liberty street, New York, in the same same territory. Mr. Zielie took up his new duties on June 1. Mr. Zielie has many friends among the officials of the large paper and twine houses in his territory.

* * *

The Mathieson Alkali Works, Inc., manufacturers of heavy chemicals, of 250 Park avenue, New York, announce the appointment of E. E. Routh as manager of sales, following the resignation of John W. Boyer, who had occupied that position for the past six years. Mr. Routh has been a member of the Mathieson organization for thirty years, with the exception of four years in college, having started in as office boy at the Saltville plant at the age of eleven. For the past eight years he has held the important post of southern sales manager, with headquarters at Charlotte, N. C. Effective at once, he will now be transferred to the executive offices of the company in New York. The company also announces the appointment of Fred O. Tilson.

* * *

St. Regis Paper Company reports for the year ended December 31, net earnings, after all charges, of $1,224,956, compared with $928,906 for 1926. Gross income from all sources, representing solely cash receipts and not including any undistributed earnings of subsidiary or affiliated companies, amounted to $10,013,559, compared with $9,143,488. The surplus at the end of the year stood at $9,469,055, against $9,358,370 at the end of 1926. F. L. Carlisle, president, in his remarks to stockholders, notes that the purchase of 600,000 additional shares of common stock of Northeastern Power Corporation during the year, gave the company control of this corporation. Its investment in Northeastern Power stock is carried on its books at $19,876,913, equivalent to $13.68 a share, he points out, whereas at current market prices these shares have a value in excess of $40,000,000. Mr. Carlisle reports the company did not receive any income during 1927 from the Oswego Board Corporation or the Harrisville Paper Corporation, two recently organized subsidiaries. The first unit of the former company's plant, with a daily capacity of 200,000 board feet, began operations recently, its entire output being taken under contract by the Johns-Manville Corporation.

Work of Forestry Program Committee Praised

W. M. Jardine, Secretary of the United States Department of Agriculture, Washington, D. C., has expressed his appreciation of the splendid work accomplished by the chairman and members of the National Forestry Program Committee in support of the McSweeney-McNary Forest Research Act, which was recently approved by the President. In a communication to R. S. Kellogg, Chairman of the National Forestry Committee, Secretary Jardine writes:

"Through press notices or otherwise you will undoubtedly have learned long before this letter reaches you that the President approved the McSweeney-McNary forest research act on May 22. I regard the passage of this act as one more important forward step in national forestry legislation. Furthermore, no step could be more fundamental than to lay the basis for the acquisition of the knowledge on which both the effective handling of our forest lands and the effective use of the products of these lands must depend. It has been a pleasure to learn of the enormous amount of splendid work which you and other members of your Committee undertook in support of this measure. I want to express to you my own personal appreciation and that of the Department for this effort. The extent of public interest throughout the entire country in general is indicated by the fact that the bill was taken up and passed in a single session of Congress, that as finally approved it contains every provision of the original draft, and that practically the only additions are those suggested by the Department of Agriculture. The Department hopes that the stimulus which this act will give to the development of its own forest research will have a similar effect upon forest research by all other agencies in the United States.

Standardization of Process Colors

There was a splendid attendance at the regular luncheon and meeting of the New York Division of the Salesmen's Association of the Paper Industry, held last Monday at the Canadian Club, New York, to hear Arthur S. Allen, color engineer, give an address on "Standardization of Process Colors." Mr. Allen is Chairman of the Standardization Committee of the American Institute of Graphic Arts. This committee is at the present time engaged in the preparation of a book on "Standard Process Colors" in cooperation with the National Association of Photo-Engravers, the Association of National Advertisers, the American Association of Advertising Agencies, the United Typothetae of America, and other organizations interested in paper and printing.

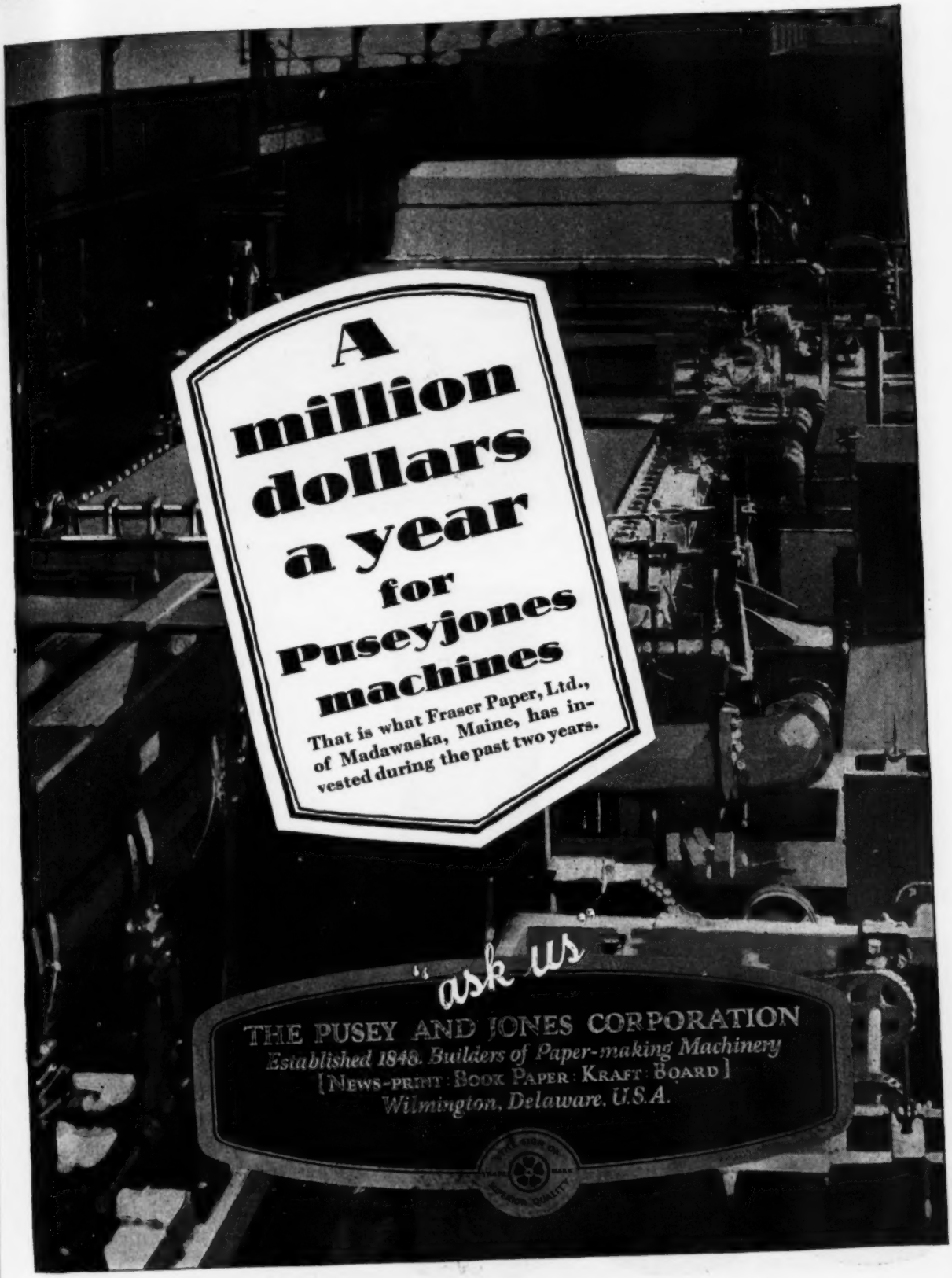
Mr. Allen illustrated his address with a color display and covered such points as the affinity of various inks for various types of paper. He also spoke on the efforts being made by his organization and others to standardize printing inks.

R. S. Kellogg, Secretary of the News Print Service Bureau, presented a chart showing the trends of the news print industry from January, 1926, to date. The chart demonstrated that newspaper advertising has gone down slightly, although consumption has expanded, due to increased circulation, which amounts to 5 per cent.

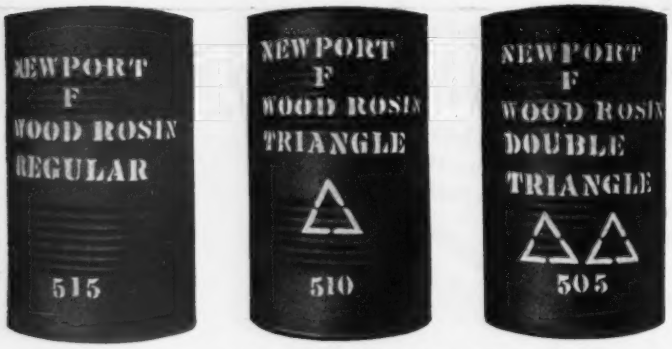
Charles H. Barr To Address Paper Salesmen

Charles H. Barr, editor and publisher of the *Paper Salesman*, will be the speaker at the luncheon of the New York Division of the Salesmen's Association of the Paper Industry on Monday, June 11. Mr. Barr's specific topic will be "The Paper Salesman of the Future," but his talk will deal largely with the advertising

Mr. Barr was for a number of years manager of sales promotion and advertising for the Crocker-McElwain Company and the Chemical Paper Manufacturing Company. He was the editor of "Rags," an advertising booklet published co-operatively by Rag Content Paper Manufacturers, thirty mills being represented. He is also an ex-president and director of The Paper Makers Advertising Club.


A million dollars a year for Puseyjones machines
That is what Fraser Paper, Ltd., of Madawaska, Maine, has invested during the past two years.
"ask us"
THE PUSEY AND JONES CORPORATION
Established 1848. Builders of Paper-making Machinery
[NEWS-PRINT · BOOK PAPER · KRAFT · BOARD]
Wilmington, Delaware, U.S.A.

Aeroplane View, Plant No. 1 - - The Newport Co., Pensacola, Florida



No Tare, No Waste, No Staves to Cling to

Economically Correct Products and Packages

Newport and Acme Wood Rosins so largely used throughout the paper industry are produced by modern method under careful chemical control in these extensive and well equipped plants.

Newport and Acme Wood Rosins are essentially clean, dependably uniform, pure pine products and much of the entire output marketed by General Naval Stores Co., Inc., is consumed in paper making.

The Cleanliness and Uniformity of Newport *and* Acme Wood Rosin *meet the approval of Buyers throughout the Paper Industry*

The Acme Products Company, Inc., De Quincy, La.

Persistent chemical research and years of intensive study of manufacturing needs, enables us to offer Rosins that contain specific properties designed to meet paper makers particular requirements.

The extensive use of Newport and Acme Rosins in the paper industry is decisive proof that their worth is appreciated by paper manufacturers, therefore, the painstaking care in production is more than justified.

Put up in drums are sold on a net weight price basis.

Mr. E. V. Romaine and qualified assistants are at your service in helping develop the exact Rosin for your special use.

Address any company office or direct to the Research Division, North Side Bank Building, Cincinnati, Ohio, when technical service is desired.

GENERAL NAVAL STORES COMPANY, Inc.

New York City
90 West Street

Chicago, Ill.
McCormick Bldg.

Minneapolis, Minn.
756 North 4th St.

Cincinnati, Ohio
North Side Bank Bldg.

New Orleans, La.
Audubon Bldg.

Philadelphia, Pa.
Packard Bldg.

THE OLDEST AND LARGEST ORGANIZATION IN THE WORLD EXCLUSIVELY ENGAGED IN MARKETING "STEAM DISTILLED WOOD TURPENTINES," PINE OILS, AND WOOD ROSIN.

LABORATORIES AT CINCINNATI, O., PENSACOLA, FLA., AND DE QUINCY, LA.

PAPER TRADE JOURNAL
ESTABLISHED 1872

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Vol. LXXXVI New York, June 7, 1928 No. 23

CHEMISTRY OF THE SULPHITE PROCESS

In cooperation with the Technical Association of the Pulp and Paper Industry, the Lockwood Trade Journal has published another book for the pulp and paper makers' technical library—"The Chemistry of the Sulphite Process."

This work is the record of the research work that has been done in the study of sulphite pulp manufacture and divides itself conveniently into two major sections:

1. A review of the detailed work carried on at the United States Forest Products Laboratory.

2. The special studies made by Dr. Donald E. Cable of the Oxford Paper Company on the subject of "Sulphite Pulp from Spruce."

In the preface of the book Mr. John D. Rue of the Research Department of the Champion Fibre Company, Canton, N. C., states, "The data presented constitutes a most important addition to the literature on the subject and have a value independent of conclusions tentatively based upon them by the authors. It is hoped that the data presented will continue to be a means of stimulating further investigation in the field."

The investigations reported in "The Chemistry of the Sulphite Process," were begun by Mr. R. N. Miller. Associated with him was Mr. W. H. Swanson, who, upon the resignation of Mr. Miller, continued the investigations with the assistance of Mr. W. H. Monsson. Others who contributed to the studies were Messrs. M. W. Bray, T. M. Andrews, and R. Soderquist, all of the Forest Products Laboratory at Madison, Wis.

Some of the subjects considered include the following:

Chemical Properties of Pulps Prepared by Indirect Cooking.

Reaction of the Calcium Base.

Distribution of Sulphur During the Cook.

Effect of Various Compositions of Acid upon Yield and Quality of Pulp.

Relative Effects of Temperature and Acid Concentration During the Cooking.

Effects Producible by Variation in Pressure.

Studies of the Acid Hydrolysis of Wood.

Influence of Hydrogen Ion Concentration.

Easy Bleaching Pulp.

Temperature Schedule in Sulphite Pulping.

In his preface to "Sulphite Pulp From Spruce," Dr. Cable states that the purpose of his contribution is to describe some of the apparatus, equipment, methods of operation and method of testing physically and chemically, sulphite pulp.

Some of the chapter titles in the section "Sulphite Pulp From Spruce" include:

Apparatus and Methods Used in Sulphite Pulping Investigations.

Effect of Cooking Spruce with the Basis Calcium, Magnesium, Calcium-Magnesium Mixture, Sodium and Ammonium.

Effect of Cooking Spruce with and without Surplus Gas (SO_2) Pressure at Beginning of a Cook.

Effect of no Pressure Drop at End of Cook as Compares with a Drop Starting after the Fifth Hour and one Starting after the Third Hour.

This volume is attractively bound in cloth, 6 x 9, contains 166 pages, and is profusely illustrated with graphs, photographs, and includes valuable tables.

The "Chemistry of the Sulphite Process" may be ordered from the Lockwood Trade Journal Company, 10 East 39th street, New York. The price is $3 per volume.

POOR YEAR FOR NORWEGIAN INDUSTRY

Last year was declared unsatisfactory for the Norwegian pulp and paper industry, according to a report from the American Consul General, made public by the Department of Commerce. Foreign competition combined with over-production by the Norwegian mills and the appreciation of the Norwegian crown brought about a steady decline in prices.

On the other hand, there were no strikes or lockouts in the Norwegian paper industries, differences between operators and their employees having been settled by arbitration. Workers agreed to a cut of 8 per cent in their wages in April and a similar reduction also took place in July. A few mills closed for a short time due to a shortage of orders and also to floods following the melting snows and spring rains.

Most serious problems confronting Norwegian pulp and paper manufacturers at present are, heavy taxes, high wages, and over-production, they declare. So far as taxes are concerned, a reduction is not considered likely and therefor no curtailment in costs in this direction can be anticipated. Wages, however, are considered unnecessarily high and it is confidently asserted that they will have to come down considerably. Over-production is expected to right itself within the course of the next few years with the steady increase in consumption.

Production of chemical pulp in Norway totaled 264,000 metric tons, compared with 240,071 tons in 1926 and 271,053 tons in 1925. To the 1927 production must be added about 104,000 metric tons consumed locally, which brings the total output up to about 368,000 tons. Exports in 1927 totaled 235,971 metric tons, comprising 111,442 tons of bleached sulphite, 103,727 tons of unbleached sulphite, and 20,802 tons of unbleached sulphate. Exports during 1926 totaled 215,345 tons of which 102,648 tons represented bleached sulphite, 94,975 tons unbleached sulphite, and 17,722 tons unbleached sulphate.

Prices were characterized by a steady decline throughout the year. Easy-bleaching sulphite, which was quoted at approximately

$3.07 per 100 pounds at the beginning of 1927 had fallen to $2.70 by the end of July and to $2.60 by the end of December. Similar decreases were registered in the prices quoted on strong sulphite and on easy-bleaching and strong sulphate. Expressed in crowns the decline was even greater owing to its appreciation in exchange value. Bleached sulphite pulp fared somewhat better the prices quoted at the end of 1927, $3.45 to $4.11 per 100 pounds, being only about 22 cents under those ruling at the opening of the year.

Ground wood pulp exports in 1927 totaled 496,970 metric tons, compared with 509,010 tons in 1926. This smaller production was the result of agreement to restrict output.

Volume of shipments of paper and paper products from Norway during 1927 was considerably above the preceding year, although owing to the steady fall in prices the value of these exports for the twelve months period shows a decrease of 13 per cent.

A Unique Chart

The Walworth Company, manufacturer of valves, fittings and tools, is presenting in another section of this issue of PAPER TRADE JOURNAL an interesting addition to the technical literature of the pulp mill industry. It is a piping and valve recommendation chart, showing in colors the flow of material through a modern sulphite pulp mill and recommending specific valves and fittings for use in different steam, water and process lines.

The chart was prepared by the Engineering Products Division of Walworth Company, with the active advice and assistance of eminent pulp mill engineers.

Different colors are used to depict graphically the flow of various materials through the processes of manufacture, from the wood pile to the finished pulp ready for the paper making machines. Brown is used to indicate acid lines, green for water lines, yellow for bleach and stock lines, light blue for high pressure steam lines, dark blue for low pressure steam lines and red for exhaust steam lines.

Aside from its interest as a scientific and useful guide for pulp mill operators and builders, the Walworth chart is an unusual venture. Special arrangements had to be made for folding and binding the chart for insertion in the magazine so that it could be removed for framing or for binding into engineering data books. The chart is such a departure from ordinary technical paper treatment of such matters as to make it almost unique. The Walworth Company will send a copy of the chart, on request, to any paper or pulp mill executive. Requests should be addressed to the Engineering Products Division, Walworth Company, 51 East 42nd street, New York City.

To Modernize Mechanicsville Plant

The West Virginia Pulp and Paper Company, with headquarters at New York City, has awarded contract to the Morton C. Tuttle Company, engineers and builders, of Boston, covering a construction program at its Mechanicsville, N. Y., plant, which when completed will have modernized much of the plant.

The need for the new development is occasioned primarily by the decision to increase production by the installation of a new paper machine, the output of which could not be handled by the already inadequate cutting and finishing departments and storage and shipping facilities.

The largest single unit in the program of expansion, which will total more than half a million dollars, is the construction of a new story over the present finishing and storage buildings. Besides other smaller additions, a covered siding will be constructed on a trestle with a 12-foot shipping platform, which will add eight cars to present siding capacity. Construction will start immediately and will be carried on without interrupting production.

Advance Bag Starts Mill at Hodge

MONROE, La., June 4, 1928.—The Southern Advance Bag Company turned out the first roll of Kraft paper at its new mill at Hodge, Jackson Parish, La., 45 miles west of Monroe, on May 8.

Six months after ground was broken, the first carload of pulp wood arrived at this gigantic mill. Seven months after the first earth was turned, pulp was manufactured and shipped to other points. Eight months and one day, which was Tuesday, after the first clod was lifted, kraft paper was run off in a test of the machinery. Jackson's drama was written in such rapid fashion as to break a record of some kind and it is believed that the record for construction was annihilated by the feat.

Feeding from timber holdings of the company running to approximately one million acres in Jackson, Bienville, Winn and Lincoln parishes, and extending into Arkansas, the big plant will afford employment to approximately 260 men, mostly in the paper department, and to 300 girls in the bag division. In addition, the forest forces will number several hundred men. Still further, the new industry affords a market to farmers owning timber lands for pulp wood. The market extends as far as facilities for conveyance to the mills makes it feasible, running far up into Arkansas already, from whence much wood has come to form the pile of about 7,000 cords of pulp material already stacked on the grounds adjacent to the barking drum, the first piece of machinery into which the raw material goes.

Forty-one miles of pipe line owned by the company carries natural gas to the plant. Four wells in Richland Parish in which the company has controlling interest, afford the supply, of which four and a half million cubic feet are consumed daily, proving again the close link between an economic fuel supply and industrial projects. The consumption of the mill is 200 cords of pulp wood per day. The company also owns the North Louisiana & Gulf Railroad, over which the major supply of pulp wood is hauled into the plant yard and over which the output is started on its tour of distribution.

The Southern Advance Bag and Paper Company, Inc., bought the village of Hodge and all therein, including the large sawmill of the Hodge-Hunt Lumber Company and with the big paper mill going into operation, Hodge is taking on the aspect of somewhat of a town all its own. In the paper mills' quarters alone, 73 houses for employees have recently been built, with more residential construction to come.

O. E. Hodge, of Ruston, and J. S. Hunt, of Hodge, are vice presidents of the company. John N. Harvey, of Boston, is treasurer, and Paul D. Caskey, of the same city, secretary.

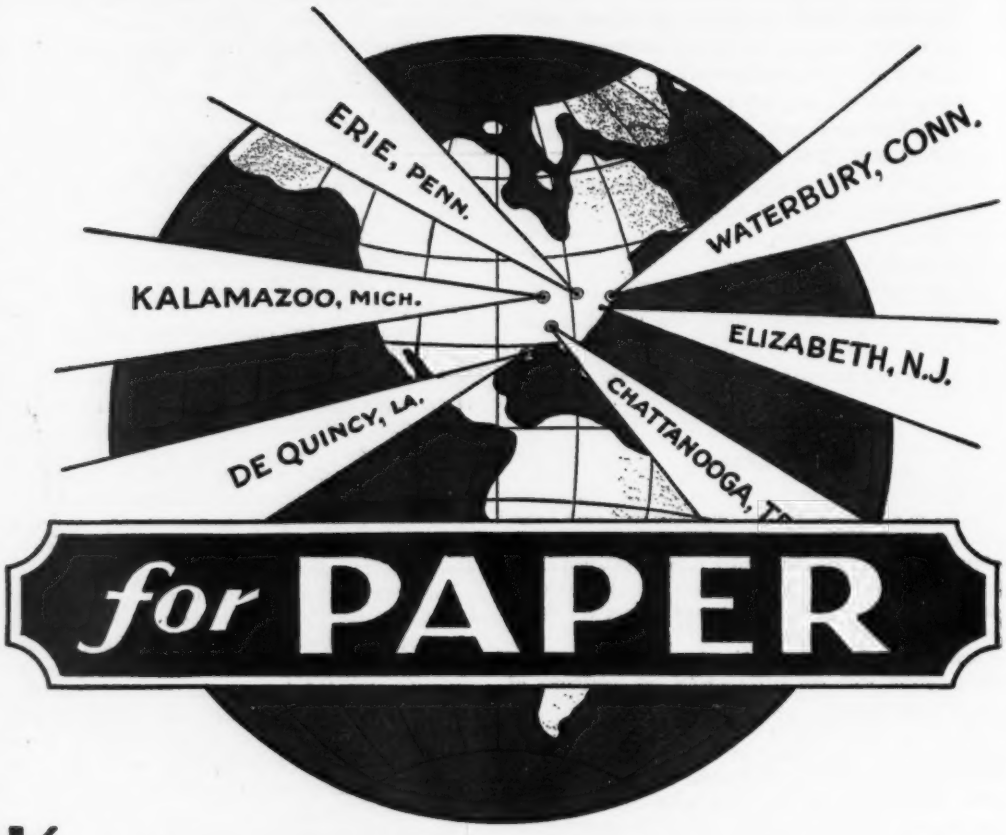
C. A. Ring, chief engineer, supervised the building of the Hodge plant and has the distinction of doing likewise with the first five kraft mills in North America, and many others since then.

J. A. Fincken, general superintendent; Frank Monaghan, superintendent of the paper division of the mill; Bruce Suttle, superintendent of the pulp mill; William Smith, superintendent of the bag factory; Thomas Carlan, chemist; Philip G. Evans, head of the accounting department; Tom Dennis, head of the storage and pulp wood department; George Mackie, manager of the Hodge stores; and Mr. Randolph, manager of the Danville stores.

Simplification for Binders' Board

WASHINGTON, D. C., June 6, 1928.—A sufficient number of written acceptances from manufacturers, distributors and organized users having been received, the Division of Simplified Practice, of the Department of Commerce, announces that Simplified Practice Recommendation No. 81, Binders' Board, is now in effect as of March 1, 1928.

Manufacturers, distributors, and users, representing at least 80 per cent of the annual volume of the industry, must have accepted this recommendation in writing before its publication as a Department of Commerce pamphlet.



KALBFLEISCH gives coverage for Chemical Needs

Modern paper manufacture is conducted along lines which eliminate waste of time and effort. Sources of chemical supply must be equally competent.

Kalbfleisch qualifies in every particular.... including the very important feature of strategic plant locations. The six Kalbfleisch plants are close to raw material sources . . . close to every paper making center . . . close to you . . . as reference to the map reveals.

This well planned grouping of plants gives extra vitality and meaning to the Kalbfleisch conception of service.

Kalbfleisch Chemicals Include— ALUM (*both Commercial and Iron Free*) CASEIN (*Domestic and Imported*) ROSIN SIZE SALT CAKE CHINA CLAY GLAUBER'S SALT SODA ASH SULPHATE OF SODA MURIATIC ACID SATIN WHITE SULPHURIC ACID AMMONIA NITRIC ACID

Plants:
ERIE, PA.
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The KALBFLEISCH *Corporation*

200 Fifth Avenue, New York, N. Y.

Plants:
ELIZABETH, N. J.
DE QUINCY, LA.
WATERBURY, CONN.

Section of the
Technical Association of the Pulp and Paper Industry

AN ORGANIZATION FOR THE ENCOURAGEMENT OF ORIGINAL INVESTIGATION AND RESEARCH WORK IN MILL ENGINEERING AND THE CHEMISTRY OF PAPER, CELLULOSE AND PAPER-MAKING FIBERS GENERALLY; IT AIMS TO PROVIDE MEANS FOR THE INTERCHANGE OF IDEAS AMONG ITS MEMBERS IN ORDER THAT PROCESSES OF MANUFACTURE MAY BE MADE MORE EFFICIENT AND IMPROVED ALONG TECHNICAL LINES.

Edited by
RONALD G. MACDONALD, Secretary

Treatment of Fibers in the Rod Mill*

By W. A. Gocke [1]

Before delving into the technicalities and possibilities of the rod mill, I wish to make this preliminary declaration that neither myself, nor any other members of the organization with which I am connected profess to know all about the rod mill, regardless of the fact that we have for several years been gathering every bit of operating and laboratory data and general information available. The fact that the field of paper manufacturing is so extensive and that there is such a variable control in the operation of the rod mill, leads us to believe that this machine, which we have adopted from the mining industry, has only scratched the surface in its short two or three years operation in the paper industry.

History of Beating

Going back into the history of papermaking, I think we can find the reason for the great amount of interest shown now, not only in the United States and Canada, but Europe as well, regarding the rod mill.

The first great invention that started the development of modern methods of papermaking occurred along about 1750, with the use of the Hollander beater in the country whose name it bears. These first beaters had rolls about twenty inches in width, and twenty-four inches in diameter.[2] They were operated by windmills and had a capacity of about two hundred and thirty pounds of stock in fifteen hours. This invention of the beater was the direct cause of the invention of the fourdrinier paper machine in 1799, in that the beaters were producing so much more stock than it had been possible to make prior to this time by stamping and by the process of fermentation, that it was impossible to use all the stock made by the beater in the manufacture of hand sheets, and so a man named Nicholas Louis Robert, a Frenchman, devised a machine and secured a patent on it in 1799, which consisted of an endless screen running between two squeeze rolls, to take the place of the old hand screens and presses. This was the first fourdrinier.

It is interesting to note that the first fourdrinier machine was not invented by a man of the name the machine now bears. Henry and Sealy Fourdrinier were two brothers, engaged in the wholesale stationery business and these two men became interested in the invention of Robert's and financed it to the extent of about $300,000.00. They lost their money and all they received for their troubles was the distinction of having the machine known forever by their name.

Since that time until the present day, ninety per cent of papermaking research and development has been devoted to the improvement of the papermaking machine, until today the paper machine is one of the marvels of this mechanical age. During this great period of development, however, too little thought and effort has been directed to the improvement in methods of refining, and today the papermaker finds his refining methods inadequate and the costs out of proportion when compared with the cost of the conversion of the pulp into paper. The machine room today is out of balance with the beater room, as in the beginning of the nineteenth century the beater room was out of balance with the papermaking process.

The beater today is essentially the same in practice as it was in 1750. Of course, the engines are built larger, circulation has been increased, and other natural developments have occurred, however, the action and principle of operation has not changed. The jordan, a distinctively American machine, has been highly developed, but it is only in the last few years that it has been extensively employed. Therefore, because of the high costs of beating, any machine which is developed, or can be adapted to the refining of pulp, immediately attracts the attention of the papermaker.

Rod Mill Operation

Undoubtedly, you are all familiar with the mechanical construction of the rod mill. In its simplest form, it is a revolving cylinder, with a length approximately twice its diameter, which rotates horizontally about its long axis. The cylinder is partly filled with rods, all lying parallel, which roll and tumble against one another with the rotation of the cylinder. The feed is continuous, the pulp entering into one end of the cylinder, working its way through the rotating rods, and finally being discharged at the other end of the cylinder.

The refining action of the rod mill is entirely different from any other type of refining equipment now in general use for the manufacture of paper, as the principal action of the rod mill is a shredding, rubbing, and macerating, and this action separates all the fibrillae, flattens, frays, and draws them out, imparts an exceptionally high degree of hydration, if desired, and yet does not cut and shorten the fibers. The action is very similar to that of the "Kollergang" or "Edgerunner" used so extensively in Europe. The rod mill has a much greater capacity, however, and lower power consumption per ton.

Although the rod mill was first developed in Germany, thirty-six years ago, it has only found industrial application in this country in the last ten years. Originally used in the mining in-

* Presented at the Annual Meeting of the American Pulp and Paper Mill Superintendents' Association, Pittsfield, Mass., May 31-June 2, 1928.
[1] Asso. Member TAPPI. Shartle Brothers Machine Co., Middletown, Ohio.
[2] "History of Paper Making in the United States," Weeks.

dustry, it has been applied to the treatment of fibers only in the past four years.

One of the first uses in which the rod mill was employed in the paper industry was in the reduction of partially cooked wood chips. Many grades of timber, especially hardwoods, have long been regarded as unsuited to the manufacture of paper, mainly due to the fact that the wood chips could not be economically cooked to a pulp suitable for proper refinement with ordinary pulp-beating equipment; namely, beaters and jordans.

In investigating the possibilities of the utilization of these various woods in paper manufacture, the United States Department of Agriculture began experimenting with various types of crushing machines, as it was found that the chips of many of these woods, when subjected to the various cooking processes, would not break down and pulp, as is ordinarily the case, but instead would be taken from the digesters, still retaining the original chip form. The rod mill was found to be the ideal machine for the pulping of these chips.

With the success of the rod mill in refining partially cooked wood chips, the rod mill naturally filled a long felt want of the papermaking by proving to be an ideal machine for the refining of screenings and shives. Not only will the rod mill brush out and defiber all these coarse particles without cutting them up and creating bits of splinters, but it will do the work with less power than used on any other type of equipment.

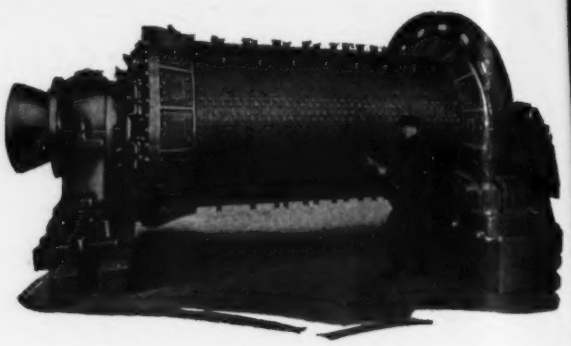
Chips and Screenings

The use of the rod mill on wood chips and screenings has logically led to its use as a beater for the following reasons:

(1) Its possibility of improving quality by more complete development of pulp strength.
(2) The ability to decrease the power required for beating.
(3) The making of a clean paper from a coarse pulp due to reduction of shives and coarse particles.
(4) The fact that it is operated continuously, requiring less attention after the proper conditions have been established.
(5) Longer fibers, due to absence of any cutting edges or sharp steel in rod mills, producing in many cases a stock more free and allowing a speeding up of the paper machine.
(6) Less up-keep and maintenance.

In making of kraft paper the rod mill offers a twofold advantage. In the first place the rod mill will refine and separate the fibers more quickly than the present equipment now in general use and will accomplish this with less power. According to G. H. Chidester[3] of the Forest Products Laboratory, Madison, Wisconsin, extensive rod mill experiments on southern kraft have shown that with the same pulp in the same beating time each unit of power expended in the rod mill is equivalent to one and two-thirds units of power necessary to produce the same sheet by refining in beaters and jordans.

[3] Technical Association Papers, Series XI, p. 127.



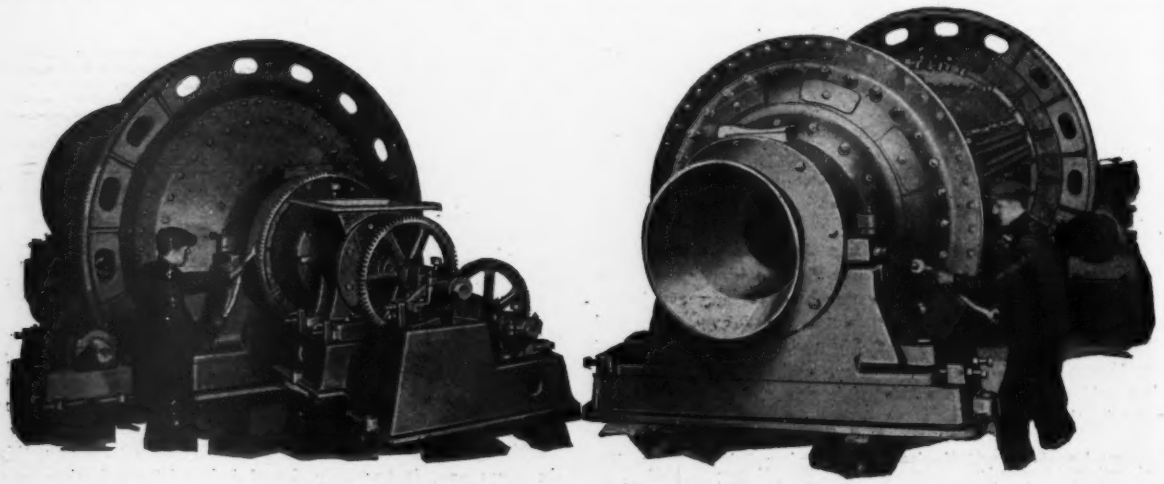
Side View, Note Comparative Size of Man and Mill

In the second place, the use of the rod mill will afford the kraft mill an opportunity to develop greater pulp strength as the wood chips can be cooked less harshly, which will not only produce a slightly higher yield of pulp, but will also produce tougher and stronger fibers. This is possible only in conjunction with the rod mill, because in the milder cook, a percentage of the chips are not entirely decomposed, which would ordinarily result in an increased amount of rejections. With the rod mill there are practically no screenings.

Rod Mill and Strawboard

Rod mills are now in use in various mills for the refining of Mitscherlich and domestic sulphite, all kinds of screenings, chestnut chips, kraft, and straw.

One of the latest and most successful applications of the rod mill to be made in paper manufacture has taken place in the straw industry. I do not believe I am making an extravagant statement when I say that from present indications I believe practically every straw mill in the country will be processing their stock through rod mills within a very short time. We are all familiar with the .009 straw corrugating sheet and its rough, coarse appearance; the specks, knots, and long stringy fibers. When this stock is rod milled, the sheet becomes very much more uniform in both appearance and texture; there is a total absence of knots and specks, it is stiffer, a better bender, and has a greater tearing strength, besides registering about ten more points



At the Left Intake End and at the Right Discharge End

in bursting strength. The sheet is improved in every respect. The most interesting fact of all is that this is done with a lesser amount of power than used to make an inferior sheet without the rod mill. I know of one installation wherein one machine is drying 35 tons of .009 straw daily. This mill was using two jordans and three 2,000-lb. beaters to refine the stock. The total horsepower on beaters and jordans was 470. Upon the installation of a rod mill, the beaters were used only as washers and the rolls never lowered upon the bedplate. From the beaters the stock passes through the rod mill, then through one jordan on to the paper machine. One jordan only is needed instead of two, as before, and that is not set up very hard.

At the screens the straw pulp handles very much like paper stock—.026 and .030 cut plates take all of the stock and leave very little to be cleaned out. All knots and joints have been thoroughly brushed out in the rod mill and go into the sheet. This fact alone represents an appreciable saving in pulp. This mill is saving approximately 100 h.p. and a ton of rejection daily since installing the rod mill and are now making one of the finest straw sheets in the country.

Liner Board

One of the leading container board manufacturers has installed a large rod mill for refining kraft pulp used in its liner board. Rod mill installations on screenings are numerous and highly successful. Sulphite is being handled in at least five mills that I have knowledge of. Most of the major installations have been made only within the last few months, so that it is impossible to have already gathered the operating data, and be able to present to you at this time. I know you men are interested in not what has been done in the laboratory, but rather only in what is being done in actual commercial operation.

The rod mill is the most flexible piece of refining equipment ever used in the beater room. Four factors are variable—stock consistency, weight of rods, speed of stock passing through the mill, and the height of the discharge head. These factors are regulated to suit the individual conditions of each mill in making their certain grade of paper. Once correctly established, operation is continuous and automatic, requiring very little attention.

To determine the correct stock consistency for the most efficient and best operation of the rod mills, three factors must be considered—degree of hydration, length of fiber, and power consumption. After gathering together all available data, we find that a stock consistency between four and eight per cent to be the limits for best general operating efficiency. A consistency between six and eight per cent is recommended for the best results.

Power Consumption

There is very little difference in power consumption per ton of pulp between consistencies of four to eight per cent. As the stock consistency becomes less, the action of the rods becomes more severe and a cutting action begins. A consistency of ten per cent may be taken as the high limit of consistency in rod mill operation. At this point the pulp has a cushioning effect on the rods and the mill begins losing efficiency. The most effective operating consistency can be taken to be that at which the entire pulp charge is held between the rods with no pool of stock lying on the low side through which unbeaten pulp may flow and be by-passed.

Varying the weight of the individual rods produced the same effect as variation in the consistency. The heavier the rods, the greater the cutting action. In other words, should it be difficult to thicken your stock to the most efficient operating consistency, pipes, closed at the end can be used rather than solid steel rods, and the mill can be operated with stock at the lower consistency and cutting action still be avoided.

The results of varying the weights of the individual rods indicate that within rather wide limits almost any desired combination of hydration and cutting may be obtained with rods of the proper weight.

The amount of refining to be done on the pulp is regulated by controlling the speed of the stock passing through the mill. This is done by the usual method of a headbox and adjustable gate. Passing twenty-five tons of stock through the mill in a given time will produce twice the amount of hydration which results when fifty tons is passed through in the same time.

Because of the fact that the power per ton of stock decreases in a big ratio with the increase in diameter of the rod mill, we do not recommend any mill for commercial operation smaller than six feet in diameter and twelve feet in length. In some cases for pulp mill work a smaller mill can be successfully used for the disposal of a daily small quantity of sulphite screenings. Past results show that a six by twelve mill will operate at less than one-third the power per ton than a mill three feet in diameter and six feet long.

Materials of Construction

The rods used in charging the rod mill for use in the paper industry are made of either high carbon steel, bronze, or stainless steel. High carbon steel is used in most installations and is always used whenever possible. The steel used should be tough, yet brittle enough that should a rod ever get twisted in the mill that it will break rather than bend and ball up. Sulphur and phosphorus content should be as low as possible. Carbon between .40 and .50 per cent with a fairly high content of manganese. The rods should have a diameter of not less than 2½ inches or more than four inches. The length of rods should be approximately six inches less than the inside length of the shell of the mill. This provides tolerance in cutting of several inches either direction.

The interior of the rod mill is lined throughout with special iron or steel, or bronze, as conditions warrant. These liners come in small sections, are removable, and are bolted to the steel shell of the mill. These liners are built in wave form and so built that they prevent the rods from slipping and yet wear with a minimum of loss. Rubber liners can be furnished, but are not recommended. Chrome steel or a special composition of hard iron called "Titanite" has proved the most satisfactory liner for the paper industry. Bronze makes an ideal lining, but has the disadvantage of a very high initial cost.

It is quite proper at this time, in reviewing the development of the rod mill in the paper industry, that proper credit be given the men at the Forest Products Laboratory for the important part played by them in the development of this phase of the industry. For four years they have worked constantly, investigating rod mill possibilities of many grades of paper and paving the way for commercial installation.

We believe that after four years of experimentation and commercial operation, the rod mill can now be accepted as a recognized piece of papermaking machinery.

Brittleness of Paper

SPECIAL INQUIRY No. 106

A member writes: "Is there any test, or combination of tests which measures the degree of brittleness of paper?

"In connection with this, it has been suggested that brittleness appears to be measured to some extent by a densometer that measures paper porosity. Apparently the longer time for the passage of 100 cc. of air through a unit area of paper, the greater is its brittleness. Of course, we all know that the high folding number indicates pliability but it is possible that the densometer test may effectively supplement the folding endurance test."

This inquiry will be handled under the Service to Members plan and all contributing to this report will receive a transcript of the replies. Send replies to

R. G. MACDONALD, Sec., TAPPI,
18 East 41st street, New York.

Steam Plant Economics in Paper Mills*

By F. C. Farnsworth [1]

New systems, modern machines and equipment necessary to meet the trend of progress and increase speed and production make it necessary for superintendents to be on their toes and alert to every new improvement.

A superintendent operating a mill and not watching out for equipment that will cause lower operating costs and make for more production is neglecting his job; and one that does watch out and find equipment that improves his condition economically should, by all means, receive the credit.

A man who can select equipment or systems that will pay for themselves in a few months is building up the mill at no cost to the owner and if he does these things and does not keep a record of his achievements and reduction in cost, he is playing a losing game, because if he stands still, no progressive company will give him credit.

It is necessary that the mills make improvements and the most of them have awakened to this fact because conditions are fast approaching a state of the survival of the fittest.

The management is required to find ways to finance the progress, that they may step in line with their competitors' costs. No lagging or slowing down of vigilance in respect to watching for the new improvements should occur.

When anyone comes to a mill and says he can provide ways and means that will increase production and do it with less fuel, he should be received with open arms, and his methods looked into carefully, especially if he is from a responsible house.

The eight-hour work day and the five-day operating week mean that when the mill is running it must produce the maximum tonnage per hour, which means that every square foot of drying surface must be giving off its maximum number of B.t.u.s.

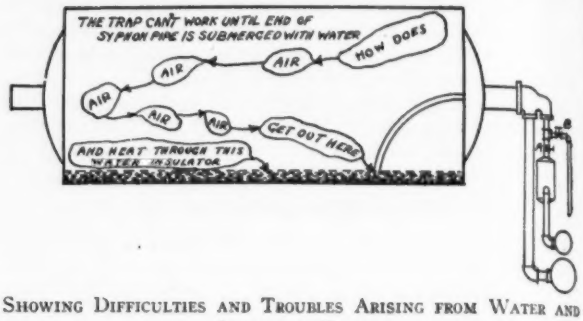
Every pound of water taken from the dryers must be pumped under pressure so that the B.t.u.s in the water will be held there until the water is fed back into the boiler. Antiquated methods must be put aside for the modern, efficient methods.

Fuel Cost

Increased production within the same walls of the building and with the same equipment, labor, overhead, etc., is valuable. Reduced fuel cost is important, because fuel is one of the major items in a paper mill.

Some mills have reduced their fuel cost by modern boiler equipment, and their power cost by modern engines. But, the mill making steam and power cheaply and wasting it in the process work, is like a man making a great deal of money, but spending it recklessly, he is no farther ahead.

Records show that more than twice as much electric current is being used today as ten years ago, but practically no more coal

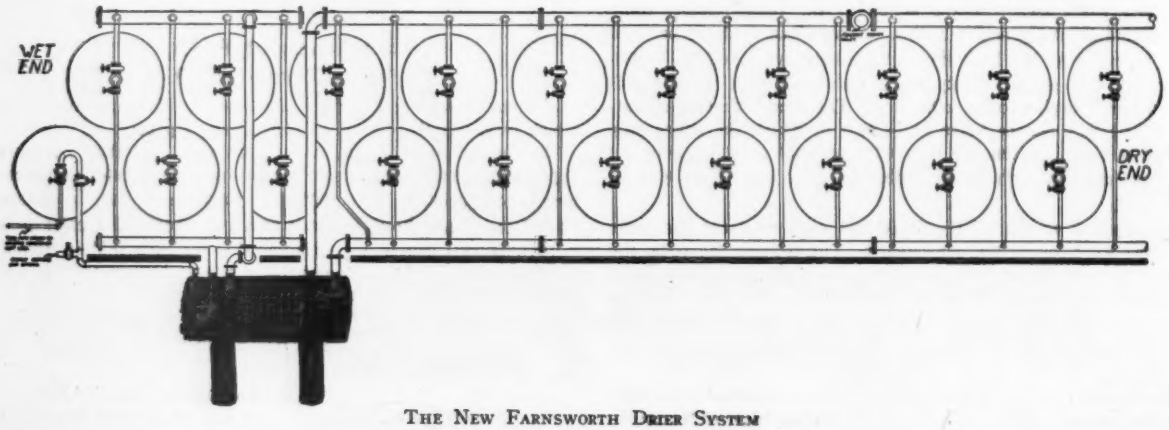


Showing Difficulties and Troubles Arising from Water and Air in the Driers

is being used, proving that economic generation of steam and economic generation of power have brought about these conditions.

The same relative condition does not apply in all paper mills in respect to their steam consumption per pound of paper dried, as apparently to date, little progress has been made in reducing steam consumption and costs.

Any method of heat reclamation involves ways and means of closing up all avenues of escaping B.t.u.s and when systems are closed up they are sure to cause ill effects in respect to production, if due care is not exercised. Therefore, special systems are required for keeping the steam moving at high speed, through the various drying and heating units which will push the water and air ahead of it and with means for extracting air at certain points and for bringing the water to a certain point for drainage under the various pressures used in and about the plant in the various processes, etc. The air must be removed without waste of steam; the water held under pressure to allow no flash of B.t.u.s. Proper separation must be used to keep the steam dry as it goes to the prime movers and it must again pass through good separators to remove the oil before it goes into the drying or heating unit, as oil is a great non-conductor of heat in paper driers as in heating systems, and will greatly reduce drying capacity, causing



The New Farnsworth Drier System

* Presented at the Annual Meeting of the American Pulp and Paper Mill Superintendents' Association, Pittsfield, Mass., May 31-June 2, 1928.
[1] Associate Member TAPPI.

loss in production and higher back pressure on engines. Superheat must be kept from steam where it is used for drying or heating, or it will retard drying capacity and cause higher back pressure. Proper metering and cost records should be kept to determine where the leaks are going.

Paper Machines

The average paper machine occupies a large percentage of the space in a paper mill and to increase the capacity of the paper machines with more driers means more power and more space. Therefore, any equipment that will make it possible to make more paper with the same driers should naturally be of interest.

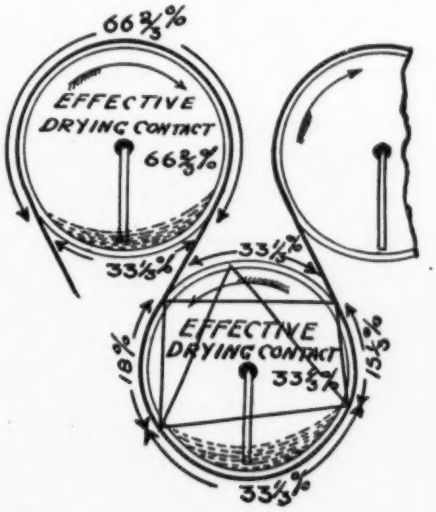
While it may be possible to press the paper harder to extract more water at the wet end, and to improve general conditions surrounding the paper machine, and it may be possible to speed up the machine by increasing the pressure, unquestionably, one of the best ways to increase the drying capacity is to absolutely eliminate all water, air, and other elements from the inside surface of the driers, making possible the maximum heat transfer through every square foot of drying surface. This is one of the perfectly logical things to do when greater production is required from the same paper machine. It is also a perfectly logical thing to do where no greater production is required, but where lower steam pressures are desired to produce the same tonnage.

In addition to effecting a greater drying capacity, it is also important to keep the quality of the paper strictly in mind. In the modern mills of today better quality is as important as more production and when the mill obtains both, it is nearing perfection.

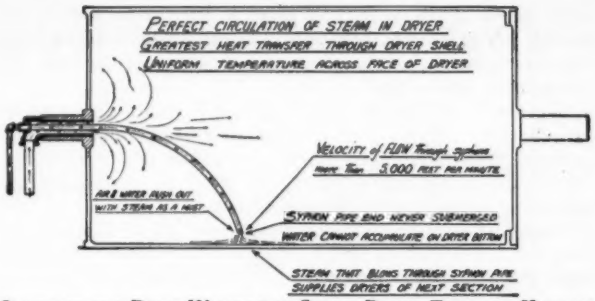
Quality is improved with lower pressure. Engines with a lower back pressure are much more efficient. For illustration, for every pound lower back pressure, one-half pound of steam is saved per h.p. per hour. Therefore, to reduce the pressure means that the same engine will develop a great deal more power to produce the same amount of steam or that it will make the same amount of power with less steam.

Paper Driers

A great deal has been said about drying systems, and so much doubt has been introduced into the subject because there are a million ways to experiment, and so many things affect the drying of paper that a slight change in piping arrangement may make an outstanding improvement. The improvement combined with some change in conditions simultaneous to the change in piping might cause a great change and improvement in drying condition. The reason that there are so many drying systems on the market is because a slight improvement in condition caused such marked reduction in costs and improvement in quality that one mill told the other, until each of the various manufacturers of systems were making progress and accredited with having successfully solved the problem of effecting maximum drying capacity.



Showing How Paper Is Dried Harder on One Side of the Sheet Because of Water Lying in the Bottom of the Drier


PERFECT CIRCULATION OF STEAM IN DRYER
GREATEST HEAT TRANSFER THROUGH DRYER SHELL
UNIFORM TEMPERATURE ACROSS FACE OF DRYER
VELOCITY of FLOW through syphon
more than 3,000 FEET PER MINUTE
AIR & WATER PUSH OUT
WITH STEAM AS A MIST
SYPHON PIPE END NEVER SUBMERGED
WATER CANNOT ACCUMULATE ON DRYER BOTTOM
STEAM THAT BLOWS THROUGH SYPHON PIPE
SUPPLIES DRYERS OF NEXT SECTION

Inside of the Drier Where the Steam Blows Through Keeping Out All Air and Water

Each of the various systems have their weaknesses, because, like men, none were ever made perfect.

It is, however, time that the paper industry should have the facts and there is nothing to prevent them from having the best of the several makes. None of the various systems cost a lot of money, if they do what they claim, that is, dry more paper and save steam. In our experience of having equipped 317 paper machines of various sizes and drying every known kind of paper, pulp, etc., we have found that a properly worked out drying system does quite a number of things and some of them are described as follows:

Immediate and continuous removal of water and air to make every square foot of drying surface do maximum work with reduced steam pressure; graduation of temperatures for improving quality, strength, and finish of sheet; uniform temperature and elimination of fluctuating temperatures so that more uniform moisture content will prevail at the reel; elimination of moving parts to reduce maintenance cost and prevent manipulation by inexperienced operators; removal of water all at one point for drainage. Collection of air all at one point for extraction; proper handling and pumping of the condensate that leaves the driers at temperature of steam, not allowing it to cool down by improper pumping methods; but to hold it under pressure until it is into the boilers; properly metering the condensate continuously with the recording charts on the face of the paper machine, so that the operator can immediately note all changes of steam consumption and correct them if these changes are caused by any change of conditions at the wet end of the paper machine.

When all these things are made possible with a proper drying system, and considering that some one of the various systems on the market might be worth thousands of dollars more annually to a paper manufacturer than another, then it should be easy to understand why careful thought should be exercised in the selection of a drying system. Even though a manufacturer may recently have installed a drying system and obtained better results than he formerly had, he should never be satisfied, because some other system might have done twice as much good. The expense of installing a good drying system is so small as compared with the good produced.

Temperature

Uniformity of temperature is made possible only by continuous removal of water and air and the continuous blowing of steam from the syphon pipes, so that great volumes of steam are blown out of each drier, which sets up a circulation of steam in the driers so necessary to effect uniform temperatures across the face of each drier. No set of ejector tees will drain steam enough from these driers or not set of check valves on the syphon

pipes or no special steam trap an each drier or no buckets will do this job right. The only way is to remove the pressure from the return header, so the steam can blow hard from each and every drier, syphon pipe.

When air is all brought to one point, it is then a simple matter to extract it. Air is a great non-conductor of heat and creates its greatest damage in paper driers by the fact that it is a non condensable gas which occupies space that the condensable gas known as steam would otherwise occupy.

Steam, when condensing into water, gives off its heat and the rate that it gives off its heat is entirely determined by the difference in temperatures between the outside and inside of the shell. Most anyone can appreciate that the first drier of a paper machine has a greater temperature difference because the wet paper is colder, therefore, the rate of heat transfer through the shell is faster at the first drier than it is at the last drier. The difference is about 800 per cent faster at the wet end driers than the dry end driers of the ordinary paper machine.

In a square foot of drying surface in the wet end dryers of a paper machine carrying ten pounds pressure, 5,976 B.t.u.s will be passed through the driers per square foot of drying surface where the temperature of the wet paper is about 60 degrees. On a square foot of drying surface near the last dryer of a paper machine but 671 B.t.u.s. will pass through a square foot of drier shell per hour. In condensing these great volumes of steam, the surface of the inside of the dryers is naturally covered with water. The removal of this water instantly is absolutely essential where maximum drying capacity is required. To explain further the disadvantage of water, where one square foot of drier surface is covered with water 1 inch deep with 10 lbs. steam pressure on the top of the water, only 718 B.t.u.s will be given off per hour, or a reduction of 88 per cent. Therefore, it is most important to remove water immediately from the inside surfaces.

Syphons

To check for yourself, just disconnect a syphon pipe from any drier and carry the syphon pipe out the window and let the syphon pipe blow steam and water as hard as it will from the drier. If you have a pound pressure on the drier, the speed of the steam will be above 5,000 feet per minute, and at 10 lbs. pressure it will go up to more than 10,000 feet per minute, and so on up as the pressure goes up. Think of these velocities and then think whether there is any water left in the drier or any air after it has blown only one minute, and think how uniform the temperatures will be across the face of the drier. If all driers were blowing that way, how uniform the temperature would remain throughout all the driers! Only such a hard blow of steam will lift up the water that lies below the end of the syphon pipe. Unless this water that lies below the end of the syphon pipe is removed from every drier, the complete system is a failure. There are some systems offered that claim a blow through, but they only blow through a portion of the driers, that is the dry end. That is, steam cannot be blown from the syphon pipes unless it is blown to some place for economic use. As such great volumes have to be blown through to be effective, therefore, the only logical place to blow the steam is to some of the driers on the wet end where it can be used over again.

The wet end driers are the logical place because they use more steam and it requires less driers to absorb a greater volume. Also the steam is at a lower temperature because it is blown from driers and is more useful because of the lower temperature, which is as it should be for graduation of temperatures.

Since the steam is traveling at 5 to 10 thousand feet per minute, proper care must be taken to remove the water from the steam or it will be carried into the wet end driers.

Separators

If a small tank without the proper baffles is used to separate the water, the wet end driers become less efficient instead of more efficient.

While we were the pioneers in this method, our systems were never efficient until we discovered our efficient counter flow baffle plate separator unit for providing dry steam to the wet end driers. And also found a way to blow steam through the wet end drier syphon pipes the same as at the dry end. This was accomplished by using the steam from the wet end drier bank of syphon pipes to heat No. 1 wet end drier, which again reduces the temperature at No. 1 drier, where the paper enters the machine.

Water seals made possible the control of the drop in pressure between each section of driers without automatic control valves between sections, and thus insuring a positive and uniform graduation of temperatures between sections. Water seals also bring all water to one point for extraction.

Water, when removed from driers at such high speed, is naturally mixed with the steam and is at the same temperature as the steam. Therefore, it should be kept at this temperature by being held under pressure until it is fed into the boiler. It is only possible to pump such high temperature by special methods, such as allowing the condensate to flow into a tank that is equalized with the paper machine, so that the condensate can be held under pressure. Then, as the tank has filled, pump the water by applying the h.p. steam to blow the water out of the tank and to a tank located above the boilers with no vent, also held under pressure. Thence it goes into the boilers by the simple method of automatically equalizing boiler pressure with the tank so the water will flow down into the boilers in the simplest form and with the least power or use of steam. That is 75 per cent less steam than is required by a boiler feed pump of any type.

Just for illustration, to show the value of proper pumping and handling condensate straight from the paper machine into the boiler. In a paper machine carrying 5 lbs., the water mixed with steam leaving at 227 degrees; at 10 lbs., 240 degrees; at 20 lbs., 258 degrees; at 50 lbs., 297 degrees.

Assume a roofing machine carrying 50 lbs. at 297 degrees. Assume 1,000 horsepower used representing, in 24 hours, 816,000 lbs. of water and this being fed into the boiler at 297 degrees, instead of 207 degrees, as is the case in the ordinary plant. This represents a total of over 73,000,000 B.t.u.s saved in 24 hours.

Mills who are prone to look these facts straight in the face are the ones who are most worried about making money in these days of keen competition caused by modern progress.

Value of the Smoothing Press in Making Sulphite and Groundwood Specialties

SPECIAL INQUIRY No. 105

A member writes: "There has been much discussion in our mill relative to the value of a smoothing press on one of our paper machines that is now being used for the manufacture of ground wood and sulphite specialties. There is a feeling that the smoothing press is of no value in making ground wood paper. We should like to have data covering the following questions:

1. What advantage, if any, is there in the use of a smoothing press on ground wood papers (75 per cent ground wood and 25 per cent sulphite)?
2. Can a smoothing press be used successfully on light weight (22 to 26 pound) *ground wood catalog papers?*
3. Will a smoothing press remove marks made by suction rolls on *all sulphite papers?*
4. Which of the following arrangements would give the greatest satisfaction on a machine running on ground wood and sulphite specialties:
   a. A smoothing roll and one calender stack;
   b. Two calender stacks with no smoothing roll;
   c. A smoothing press in the middle of the drier section."

This inquiry will be handled under the Service to Members plan and all participating will receive a copy of the finished report. Send replies to

R. G. MACDONALD, Sec., TAPPI,
18 East 41st street, New York.

Slitter and Winder Troubles and Remedies*

By L. J. List [1]

One of the more or less common slitting and winding troubles is interweaving, experienced to some extent and under some conditions, on slitters and winders of every type, except the little shaft or tension winder, with rolls winding on alternate shafts. This paper, however, primarily deals with the surface or drum winder.

The principal causes of interweaving are:

1. Insufficient or excess tension on unwinding roll or reel, responsible for perhaps 80 per cent of the trouble.
2. Lateral movement in idlers or drums over which sheet is threaded.
3. Insufficient wrap around and control by the drums.
4. Too long a thread-up or "draw" from slitting elements to point of contact with the drums.

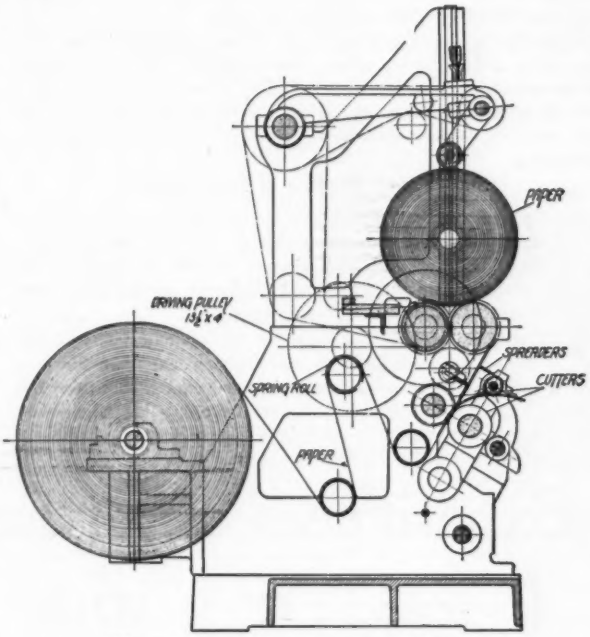
As to tension, a friction properly designed and proportioned to suit the character of stock being handled, and some skill and judgment on the operator's part in its use, are most important. An unwinding roll that is out of round or not centered on the unwinding shaft, and which revolves eccentrically, contributes to the trouble.

Lateral movement in idlers or drums can, of course, be controlled by end thrusts, spacing or clamping collars. A short thread up from the slitting elements to the drum, and sufficient wrap around the drum, assists materially in maintaining the relative position of slit edges so they will not interweave. Grooves in the drum are a help, only in that they release the air from under the sheet so that it makes a more instantaneous and intimate contact with the drum. The use of a bow spreader or individual spreaders will often assist the operator in humoring or controlling an imperfect sheet and thus avoiding interweaving.

Telescoping of Rolls

Another one of the common troubles is telescoping or dishing of rolls, the result very largely of a poor start or soft center in the roll, or shifting of paper on the core. This may originate from winding on cores that are of uneven diameters or out of round.

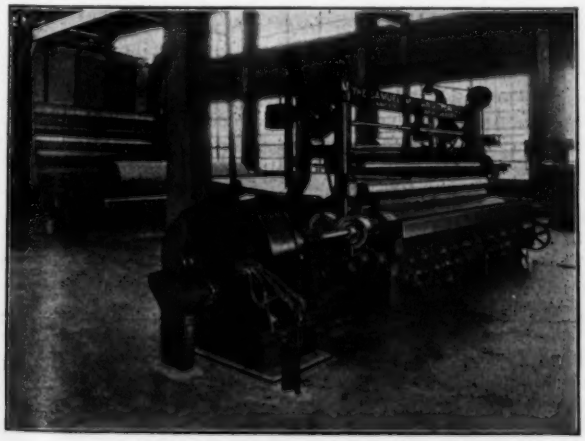
Winders using a driven rider or pressure roll have a decided advantage in getting a good tight start with the very first wraps around the shaft or core, and also in handling and humoring variation in caliper across the sheet within reasonable limits.



WINDER PRINCIPLE OF LANGSTON WINDERS

A trouble closely related to the preceding ones is the collapsing of center of roll, sometimes referred to as "star-shaped." Increasing the tightness with which roll is wound as the diameter increases, invites this trouble, which is avoided on the pressure-roll type winder, because of the uniform tightness possible.

A winder that depends entirely or primarily upon tension on the unwinding roll or reel, for the tightness or density of the finished roll, or on which practically no tension can be applied



LANGSTON SLITTER AND WINDER

LANGSTON-KOEGEL SHEAR CUTTERS

* Presented at the Annual Meeting of the American Pulp and Paper Mill Superintendents' Association, Pittsfield, Mass., May 31-June 2, 1928.

[1] Associate Member TAPPI; Secretary, Saml. M. Langston Co., Camden, N. J.

until roll diameter builds up and drums get control of roll, is at a decided disadvantage, and especially on small roll work.

On some grades of paper, maximum density or tightness is undesirable, because it creates or contributes to the formation of wrinkles or welts or other troubles. Certain grades of sulphite bond, and carbon tissues are cases in point.

In addition to winding a tight roll of maximum density or content, there are cases, therefore, where because of wide variety or special character of stock a less tightly wound roll is preferable, and the successful slitter and winder must incorporate principles and operating adjustments that will meet the requirements of either case.

Slitting and Winding at High Speed

Slitting and winding behind the modern high speed paper or board machine introduces some problems which can only be met by the most modern slitter and winder. This is particularly true because much that in the past was looked upon as finishing room work is now done at the end of the machine.

Whether news at 1200 feet, kraft at 900 feet, or board at 300 feet, it means slitter and winder operating two to three times as fast in order to keep out of the way. Assuming the slitter and winder is built properly to stand the pace, one of the greatest aids from an operating standpoint is a drive with great flexibility, and which permits of a quick get-away and equally quick stop.

The direct connected motor, with dynamic brake is one method and the Waterbury oil gear drive another. The oil gear also acts as brake, as well as provides complete range of speed from "one revolution" up to maximum.

Ability to inch the slitter along when threading up or making a start, and a quick get-away and quick stop, results in ability to keep ahead, whether on counter rolls or rolls of larger diameter.

Dust is a serious slitting problem on certain grades of stock, such as cash register and adding machine rolls, die wiping stock, and music paper.

The type and condition of cutters, method of thread up at the cutting point or through the cutters, and character of stock, all have a bearing on this question of dust.

Recent Surveys

We recently had surveys made in a number of mills by an independent engineering organization, to check up this question, among others. The information developed was very conclusively in favor of the so-called shear cut principle, such as embodied in Langston slitters and winders, both from standpoint of minimum dust and maximum service from cutters.

In combining this cutting principle, with surface or drum winding in its most perfected form, the Samuel M. Langston Company offer a slitter and winder capable of meeting practically any requirement of the paper or board industry.

Experiences of an Envelope Manufacturer with Paper*

By James J. Shea [1]

The subject which I have been asked to dwell upon for a few minutes today is one which could easily invite hours of talk and discussion. Therefore, it is perfectly evident that the real problem which confronts me is to tell you in the few minutes allotted, what will be most interesting and instructive to you in your work, from the viewpoint of the Envelope Maker.

In starting this talk, I am reminded of the iron molder who, whenever he poured a poor casting, blamed it on the poor grade of sand, the fact that the coremaker did not make the core with the proper draft, that some one must have disturbed his flask, or some other similar excuse. I do not wish to leave with you the slightest impression that all or even a majority of the Envelope Makers' Problems are due to the Paper Manufacturer. We have our troubles and plenty of them from other sources.

Perhaps it might be well for the sake of refreshing your memories and from a descriptive standpoint to briefly mention operations required to complete the finished product in an envelope plant.

The paper is delivered to the envelope cutter, who places anywhere from two hundred and fifty sheets to five hundred sheets on cutting board, clamping same after he has properly jogged it. He then takes die and proceeds to cut same under cutting press, being careful to get all possible cuts from sheet, getting required results by following chart which has already been worked out for this particular size sheet and size of die.

The cut blanks are next delivered to the Machine Folding Department, where folding machines are located. The method of folding envelopes on an ordinary plunger type machine is to pick up one blank at a time from a pile of blanks placed on a plate known as an elevator by means of gummed picker which deposits gum on front and back flaps. The picker is replenished with gum at every revolution of machine, by means of a gum roll traveling back and forth under same. The blank is then carried under a plunger, the exact size of folded envelope, which comes down and pushes blank into box known as creaser box, which causes envelope blank to be creased to approximately the exact size of the plunger. The plunger continues on its downward stroke, conveying blank with same until it deposits it on hinged block. On all four sides of this block are located the folders which fold the four flaps of envelopes, first the side flaps, secondly the back flap, and finally the front flap, after which the block drops or opens, allowing folded envelope to drop into a dryer chain, from where it is carried around to till, counted out in twenty-fives automatically, banded by operator and boxed, ready to be taken to packing department, and later shipped.

I feel that the greatest problem which the Paper Manufacturer and Envelope Manufacturer have in common, is the moisture content of the sheet. To solve it, the paper man must see to it that the sheet is shipped from his mill with the proper moisture content and the envelope man must see to it that proper facilities are provided to keep this moisture content in the sheet until such time as it is cut up into envelope blanks and folded on the folding machines. This problem is increasingly serious as we go into the higher grade of paper, whether it be a sulphite or sulphite rag content sheet.

The average moisture content of sheet as it leaves the paper mill should be at least seven per cent, and in the winter season, this average can be raised slightly without danger of causing trouble to the envelope man from what is known as wet paper.

Most of you who manufacture paper for the printer have had this brought to your attention more forcibly in the last few years because the printer has found that stock which was too dry has cost him much more money to print than that which has proper moisture content. Practically all of the

*Presented at the Annual Convention of the American Pulp and Paper Mill Superintendent's Association, Pittsfield, Mass., May 31 June 2, 1928.

[1] United States Envelope Company.

problems which the printer has faced due to this are likewise experienced by the manufacturer of envelopes in converting his paper, such as curly stock, static electricity, and, worst of all, cracky edges on the folds, particularly on envelopes made from high grade Vellum stock. The Paper Manufacturer has it in his power to correct this fault in the paper before it leaves his plant and then it is up to the Envelope Manufacturer to provide ways and means to keep this moisture in the stock after it is placed in his stock room, for once this moisture escapes, it is impossible for him to get it back into the sheet by humidification or any other means. I do feel that the Paper Manufacturer has realized the seriousness of this matter and that there has been a steady improvement on same.

Of late, quite a number of opinions have been expressed among men engaged in Envelope Manufacture, as to how far the matter of humidity control should be carried. Some Envelope Manufacturers feel that the best results would be obtained by having complete control of humidity throughout the mill, while others claim that if the envelope blanks are folded under proper atmospheric conditions, this is sufficient. Still others claim that the only point which should be controlled as regards humidity is the stock room where the flat paper is stored. There are good reasons advanced for all of these opinions. My experience has tended to cause me to agree with the latter. That if the stock is received with proper moisture content and stored in a room with a relative humidity high enough to keep this same amount of moisture in stock, then it is not so necessary to control the moisture in the rest of the building, because usually when the stock is called for, it is made up into finished product within two days after it has left the stock room. Several tests along these lines have substantiated this opinion.

Another problem possibly as great is that of making a sheet sized in such a manner as to have the snap and life and yet allow the gum to penetrate the same when applied. A sheet of paper suitable for envelope use must be properly sized and here again, this is strictly a paper mill problem. A sheet without the proper size gives plenty of trouble on the envelope machine, first due to lack of body or life which causes it to fold badly, and secondly invariably the seal will be poor, both in appearance and sticking quality, because the gum penetrates same too rapidly in much the same manner as water acts on blotting paper.

On the other hand, a sheet too highly sized offers an opposite problem as regards the seal. Regardless of the power of the gum to stick the paper, it has the tendency to "pebble" on the seal, giving it an appearance of water poured on waxed or greased paper. The gum will not lay evenly, no matter how heavily it is applied. The result of this is that in many an instance, the seal may stick perfectly, but customer condemns same because it has the appearance of not having enough gum.

One common fault to be found with some papers, although they may retain all other characteristics which go to make a good sheet for envelope manufacture, is the fact that the fibres are too short, which cause it to crack excessively when folded against the grain. As I have previously stated, this is particularly undesirable on higher grade sheets, although it detracts greatly from the appearance of any box of envelopes, whether they be sulphite, white, manila, or high grade sulphite bond.

A common trouble which besets us at times is to find a lot of paper buckled across the sheet in three to five places. This is usually due to drying too quickly on the paper machine and causes much trouble to envelope men, particularly after it has been cut into blanks. Naturally the blanks will not lay flat on elevator, with the result that when the seal picker comes down to gum the front flap, it only hits the high spots, leaving the low parts of flap without gum entirely. This, naturally, is not satisfactory to the customer when he notes seal flaps unevenly coated with gum.

Paper made with an uneven fill on machine or which has been allowed to run crooked, causes much difficulty, because it is thin on the edge and up to proper thickness in the center. A sheet like this is hard to cut and much more difficult to fold, due to variation in thickness, with the result that the quality of finished product suffers.

Summing up the qualities which a suitable sheet, for use in the envelope plant, must possess, wish to say that it must

(1) Contain proper moisture content
(2) Must be sized properly
(3) Should be made of long fibre
(4) Should be dried evenly and not too quickly on paper machine.
(5) Should be of even thickness throughout sheet

By making a sheet having these five essentials just enumerated the Paper Manufacturer will go a long way toward helping the Envelope Manufacturer make better envelopes, at much less expense. It is my hope that this little talk has helped or at least explained to you something about the manufacture of envelopes which will be of assistance to you and which will work out to our mutual advantage as time goes on.

The varieties of papers used in the manufacturing of envelopes today are so numerous, that one can easily imagine that the envelope man has his problems.

Stocks from the very lightest glassine, to what could without any stretch of imagination, be called box board, are now demanded by the trade and the Envelope Manufacturer has been called upon to make many changes over the methods in vogue a few years ago.

The various papers used and our experiences with them, I will be glad to discuss with you and it may perhaps be enlightening to you who have the task of making these papers.

I might say, in closing, that it seems to me that you gentlemen of the paper trade are taking a forward step in the proper direction in arranging these close contacts between yourselves and the men who use your products.

Such contacts can result only in good to all concerned and will help all of us to produce a better product and ought to lighten the burdens of both envelope and paper man.

TAPPI Fall Meeting at Wausau

The Executive Committee of the Technical Association of the Pulp and Paper Industry at its meeting in the Board Room of the American Paper and Pulp Association, 18 E. 41st Street, New York, voted to hold the Fall Meeting of the Association at Wausau, Wis.

Considerable attention was given to the courteous invitations of papermakers to hold this meeting at Buffalo, N. Y.; Richmond, Va.; and Chicago. All these cities offered attractions that would make them desirable ones in which to hold such a meeting.

Wisconsin is second in membership standing in the Technical Association, being surpassed only by New York. The many technical developments that have taken place in the paper mills of Wisconsin qualified this state as the logical one in which to hold such a meeting and the very favorable location and facilities of Wausau led to its selection as the Fall Convention city of TAPPI.

Japan Increases Paper Production

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., June 6, 1928.—The Japanese Paper Manufacturers' Association reports that the March output in the association mills was 51,498 short tons and sales at 56,659 tons, bringing the totals for the three months period ended March 31 up to 149,705 tons and 157,820 tons respectively. During the corresponding quarter last year production amounted to 134,377 tons and sales to 134,131 tons. Approximately 40 per cent of

Problems of the Printer with Paper*

By Otto W. Fuhrmann [1]

In the study of the history of printing, one cannot help noticing that typography proper, that is the designing and production of type and its composition into pages, was considered the most essential part of printing, from the very beginning through the centuries down to rather recent times. In other words, the mysteries of the "black art" and its technical difficulties centered around what we would call today "preparation," and not around the "production" end. In hardly any of the historical books is the technique of presswork accorded more than a passing reference, while the work of the punchcutter, the typefounder, and the compositor is described minutely. The many "manuals" of printing, in whatever language, up to recent years devoted only a small section to presswork. And even today we find that most printing plant superintendents have graduated from the composing room end of the business.

From this we can infer that printers of the past were not greatly troubled with paper problems. One need only look at the simple construction of presses up to the time when photoengraving changed the whole aspect of printing, scarcely fifty years ago. A glance, for instance, through Ringwalt's "American Encyclopedia of Printing" (Philadelphia, 1871) is very interesting and illustrates the point. To be sure, Koenig's invention of the cylinder press in 1812 had made demands upon the papermaker by requiring larger sizes and greater output, but inasmuch as the paper was used damp and fed to needle points, no new problem arose until the introduction of grippers which necessitated feeding to front guides. Modern pressmen do not know how easily damp paper prints, how even a hard paper become pliable and takes the ink easily, whether solid or fine lines. Of course, the laborious way of wetting down and plating afterwards had to give way before the requirement of speed and the increased use of color, which meant register.

Halftone engraving necessitated more changes in printing methods, press construction, and paper making than any other invention in the industry, because it meant rigid impression and led to the making of coated paper, the curse of modern printing. This paper was aptly described some years ago by Platt Young as "two layers of clay held together by faith, hope, and charity." In spite of the fact that we have learned to overcome most of the difficulties created by this paper and that most beautiful illustrations are printed on it everywhere, coated paper cannot be regarded as anything but a makeshift, even though a clever one, useful only up to the time when printing or papermaking methods improve. While I am not a prophet, it is safe to predict improvements in the industry comparable with the rise of offset and rotogravure printing during the last twenty years.

There are today available papers in an endless variety for all possible purposes, manufactured with great skill, and well adapted to the various printing processes. Some manufacturers, however, seem to think that in this jazz age anything odd will make a fast selling line, and so they proceed to turn out papers that disregard the first requirement of a printing paper, viz., that it be printable. Nothing could be more fallacious. Take for instance all the leather-imitation papers; why should a papermaker disguise his honest product and make it look like something else, without being able to make it more than a mere imitation? Good craftsmanship is based on three fundamentals: honesty of material—appropriateness of method—skill in execution. These principles apply to paper as well as to furniture making. Some years ago I handled the printing of sample books and sheets of some well-known cover papers of this sort; we had to resort to many stunts; that was "faking," not printing, and I am sure that the beautiful samples have led many a printer into trouble. We have that same situation today, and from the standpoint of the printer I say: that is all wrong.

Every printing technique, whether typographic, planographic, or intaglio, requires contact and therefore a fairly even surface. If the surface is uneven, as in ribbed or embossed papers, extra force has to be applied to make the ink reach the depressions in the paper, and the result is that the ink is squeezed out. There are definite limits as to quantity and stiffness of ink and the amount of pigment in it, also as to pressure—not to mention variations introduced by the character of the design to be printed and by other problems of printing manufacture. It seems, therefore, to be wholly impractical to make such papers for printing purposes; it is much more logical to make papers with a good printing surface and have the fancy finishes put on afterwards, just as we do now when we send color prints on coated paper out to be pebbled, grained, or treated in other ways by the finisher.

Worse than the unevenness created by embossing is actual difference in thickness, as produced by watermarks arranged in heavy ribs, but worst of all is a new creation in the making of which colored pieces of paper are sprinkled over the wet stock and embodied by calendering. Every such piece makes a lump, and when you have a double-thick cardboard made of such stock, printing is next to impossible. Any kind of a printing form is bound to get smashed. What good is a paper to the printer if it ruins his type, his engravings, and his electros? To be sure, we can have heavy-shell nickel electros made and print from iron bases—but shall we risk breaking the press because somebody picks this ridiculous stock to have one hundred Christmas Cards printed?

So I say again: the maker of printing paper must consider first of all the printing quality. If the use of paper is the essential thing and printing merely incidental, then, of course it becomes a specialty to be handled by a relatively small number of printers. I am not speaking for them—I represent the mass of "just printers."

One would think that the improved presses have made it easier for printers to get good results from good papers; but that is true only relatively. The demands for speed and for larger quantities have created new problems that did not exist a generation ago. Some mechanical sheet feeders work with friction wheels and create static electricity which has to be removed by other apparatus; and the employment of gas heaters for the purpose of quick drying has brought about an excessively dry atmosphere in the pressrooms, with its attendant evils, which is forcing the printers to consider humidity control.

Most of our troubles occur with coated paper. As stated before, the wide use of halftone illustrations is responsible for the existence of coated paper; for the perfect printing of halftones, and especially color work, depends upon an even surface. In an ordinary halftone of 133 screen there are 16,900 dots per square inch; this is the screen most widely used. The 150 screen for fine catalog work and the 120 screen for work of a lower character have 22,500 and 14,400 dots respectively, and in each case the highlight dots have an area of a pin point. The space between the dots is etched out to

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[1] Typographic and Production Counselor, Blanchard Press, Inc. Vice-Chairman, Educational Commission, International Association of Printing House Craftsmen.

the depth of one to two one-thousandths of an inch. Without going further into the details of halftone making, it is evident from this that the printing of halftones comes down to a matter of perfect contact between plate and paper, with the right amount of ink of a certain consistency as third factor. while the printing of type on non-coated stock requires a sharp impression, a halftone needs only what we call a "kiss" impression. As soon as we succeeded in having every dot print exactly the way it is etched in the plate, the work of "make-ready" is completed. Any further pressure would result in a squashing of dots and a filling-up of some of the open spaces, and that would alter the tonal values of the halftone. You cannot force a halftone; the more make-ready is put on it, the worse the result. Perfect contact is the goal we have to strive for.

Now, if the coating, as happens sometimes, is full of minute holes, visible only under the magnifying glass, it is perfectly evident that no amount of work and worry on the part of the pressman will give clean halftone prints. In the endeavor to avoid the white spots, wherever a dot would meet a hole. more pressure and more ink will have to be carried, and that means that the sheets are overloaded with ink and will "offset." That is bad enough on black work, but it is bound to ruin the job if it is process color work. What causes those holes, I do not know; but well do I remember a big job some years ago that caused us no end of trouble.

A more frequent occurrence is uneven coating on the two sides. Suppose the job is running well on the white sheets; on the back-up the pressman finds that he has to either increase or decrease the flow of ink. That may be all right, provided he gets no "offset." But what can he do when the lifts of paper get mixed in unpacking and stacking and he has good and imperfect sheets follow each other? He is helpless.

The same is true if the coating is streaky; the pressman can only pray that he will have enough good sheets to get his copies for the office and the customer; the rest will have to go "as is." It is true, though, that these troubles occur mainly in papers of cheaper grades; but then it seems to be the printer's misfortune that he so often is compelled to use them.

A Chicago craftsman said recently in a discussion of "Technical Control in the Printing Industry":

> "Pressroom executives could better control the quality of the product if paper men would only furnish the paper we pressmen have got to use either uniformly bad or uniformly good. The way it is now, a lot of paper goes through the presses whose printing surface is good, then bad, then good again. In order to make something of this paper, we would have to have 'acrobatic' ink."

To you papermen who try so hard to get the desired uniformity of coating this may sound exaggerated; but from my experience, I must say that it is the plain unvarnished truth.

The strength of the coating, whether starch or casein, must be such as to prevent "picking" of the ink. Fortunately, the pressman can vary the "tack" of his ink between certain limits. For every standard paper inks can be had now that will work clean, will set and dry quickly, and will not "offset." Which one will work best is a matter of trial and error and is very largely influenced by temperature and humidity conditions. The intelligent printer lets the inkmaker do the experimenting, whereas his less progressive colleague still clings to his various kinds of "dope." This consists mainly of paraffin or similar substances, in order to soften the ink and lessen the "tack," starch to give it "body," and enough dryer to compensate for the added grease. All the commercial compounds are good if used sparingly, and with a full knowledge of the conditions surrounding the job; but their injudicious use is responsible for many unjust complaints about the paper.

The pile delivery on modern presses necessitates forced quick drying of the ink. This is accomplished by gas flames coming out of a perforated bar over which the sheet passes quickly. This device, however, while it works very well, has accentuated the problem of humidity control in the pressroom to a degree not known heretofore, because of the excessive dryness created by it.

I might mention here in passing that the two-color presses, both flatbed and sheet rotaries, have lessened our register problem on process color work, simply because the sheets are handled and exposed only half the number of times. Difficulties in that line of work are matters for the photoengraver and the inkmaker to solve—and they have been solved.

Now let us take up the most common complaints about stretching, shrinking, and curling of paper. Contrary to general belief, a mechanical stretch, due to the pull of the form, has never been proven. I find that statement in one of the papers published under the auspices of the Lithographic Technical Foundation in 1927, and I am inclined to subscribe to it. In recent years printers have heard and learned much about humidity and temperature and their close relation, and careful observation has disclosed that many of our troubles for which we used to blame the papermaker are solely due to the lack of any control of atmospheric conditions in the printing plants. Offset—static—wrinkling—curling—stretching and shrinking —cracking on the fold—all of these can be reduced exactly in proportion to the degree of control of both humidity and temperature; and by control I mean "in a scientific manner," not by "guesswork."

It would be outside of the scope of this paper to go into the details of humidity control and its effect on paper. In that respect you papermakers are far ahead of us printers. In contrast to the standardized methods of making paper the printing of paper, as a general rule, is still done by rule-of-thumb methods, and nothing seems harder than to convert printers to the idea of using sound engineering principles.

I cannot praise too highly the progressive attitude shown by some papermakers who are not satisfied with having adopted scientific methods themselves, but who carry on, at great expense to themselves, an active campaign to educate printers and consumers. Their efforts, for which I hope they are reaping a good financial reward, will ultimately benefit the whole industry.

Many of the troubles printers have with paper are brought about by their own ignorance. This statement will probably shock most of my colleagues; but it is true, nevertheless. There is no other industry the size of the printing industry that is so lacking in technology in knowledge of facts, analysis of conditions, in research. Highly complicated materials and processes make up printing in its many branches; and considering the general lack of understanding and knowledge, it is a wonder that so much good printing is being done. However, the waste resulting from such a condition is enormous, as shown in an exhaustive analysis published a few years ago by a commission of engineers under the supervision of Herbert Hoover.[3]

We know that paper is fibrous and, therefore, easily affected by humidity; and we know that humidity and temperature vary tremendously. Yet, have we as an industry ever done anything to control these variable factors in printing plants? No, instead we have blamed paper, ink, rollers, speed—everything but ourselves.

All the little tricks of the pressman, such as racking in small lifts, slip-sheeting, gas-drying, static elimination, sprinkling floors, opening radiator valves, doping the ink, are only palliatives; they do not touch the heart of the matter. And in line with that, any kind of a building or room is considered good enough for a printing plant, and the matter or air circulation and ventilation is generally solved by opening or shutting windows. Could anything be more amateurish than such

disregard of all scientific facts? Has is ever occurred to any printer to protect the edges of his paper? The sheets are piled up; they come flat out of the cases, but in a few hours or days the edges are wavy. And then the pressman has a sweet time to get register or to get the sheets through the press without wrinkles. And the paper gets the blame!

It is my firm belief that the majority of complaints about paper will be eliminated as soon as printers substitute scientific facts for guesswork or time-honored notions. A beginning has already been made by the Lithographic Technical Foundation, I am glad to say, and by the Bureau of Standards in Washington.

Now that sounds as if I were promising you the millennium. As a matter of fact, if all the troubles mentioned would disappear, there would still be left some unsolved problems.

There is the matter of opacity, for instance. Many a good printing job has been spoiled because a heavy line of type or a cut would show through on the other side. Good printing papers, in spite of good folding quality, bulk, and good appearance, are supplanted by coated papers. If a way could be found to make machine finish paper more opaque without impairing its other qualities, it would enable printers to execute many jobs in the simplest way, typographically, instead of turning to more complicated methods of printing, such as offset.

Another problem is the difference between the felt and the wire side. If the difference in texture is so great as to be plainly visible to the eye, how much greater must be the influence on the form and the way it will print. Even in plain type printing on laid paper, where a sharp impression is needed, the comparative smoothness of the wire side makes it hard for the pressman to keep an even color throughout the job.

The matter of grain is perhaps the greatest unsolved problem. As paper is made now, the fibres arrange themselves largely in the direction of the run; if irregular matting of the fibres could be obtained in the manufacturing process, many of the printer's problems of register and folding would disappear. As it is now, we often are between the devil and the deep sea. From the printing standpoint, we want the grain to run parallel with the press cylinder, the long way of the sheet. That means that the sheet will hug the cylinder and will give good register; yet we often, thereby, run counter to the wishes of the binder who has to fold the sheets. Certain folding machines, working on the friction roller principle, must make the first fold with the grain.

The difficulties printers encounter with multiple folds on illustrated circulars on coated stock are partly responsible for the growth of offset printing. From the consumer's standpoint it is a distinct advantage to have a bulky, strong, antique finish paper on which solids as well as the finest screens can be printed; yet, this lithographic method has its drawbacks, chiefly in the meager appearance of typematter and consequently reduced legibility.

It would be of great help to all printers, regardless of method, if papermakers and paper merchants adopted the scheme of indicating the grain by underscoring the figures wherever used. It would save countless jobs. Cases and packages could be stenciled easily, and as to price lists, all that is required is a little co-operation from the typefounders and makers of composing machines. Underscored figures, logotypes, and matrices to fit standard fonts can be supplied to the trade at a cost that is negligible as compared with the trouble and effort to work a job with the grain the wrong way. But, of course, the ideal way would be to have no grain at all.

Printers as a whole have as yet not realized that they are fighting a losing battle against tremendous odds; they seek the solution in cost systems, in specialization, and in greater sales activity in order to reach volume. The technological side has been neglected. Inasmuch as it is impossible to manufacture papers that will answer all possible requirements at once, the printing industry would, in my humble opinion, be served best by research and the application and adoption of precision engineering methods. That would reduce our troubles considerably and would eradicate the present tendency to "pass the buck."

[3] "Waste in Industry," by the Federated American Engineering Societies. New York, 1921. McGraw-Hill. Pages 176-209.

TAPPI New Members

C. M. Baker, Engineer for American Paper and Pulp Association, 2 South Carroll street, Madison, Wis.

H. F. Bamford, Student, University of Maine, Orono, Me.

M. D. Bardeen, Assistant Chemist, Lee Paper Co., Vicksburg, Mich.

H. C. Bradford, Secretary and Chief Chemist, Rex Paper Company, Kalamazoo, Mich.

R. B. Brown, Chemical Engineer with D. Manson Sutherland, Jr., Broad Street Bank Building, Trenton, N. J.

L. S. Burdon, Resident Manager, Rainier Pulp and Paper Company, Shelton, Wash.

E. G. Drew, Sales Engineer, J. O. Ross Engineering Corporation, 303 Lumbermen's Exchange Building, Portland, Ore.

F. W. Egan, J. O. Ross Engineering Corporation, 30 East 42nd street, New York, N. Y.

H. C. Fleischer, Managing Partner, Seidenpapierfabrik Eislingen, Eislingen a.d. Fils, Germany.

E. T. Harbert, Sales Engineer, Canadian Ingersoll-Rand Company, Ltd., 10 Phillips square, Montreal, P. Q.

R. W. Hovey, General Manager, Nashwaak Pulp and Paper Company, Ltd., St. John, N. B.

D. A. Hunter, student, N. Y. S. College of Forestry, Syracuse.

J. E. Jackson, Consulting Research Chemist, 136 E. 26th St., N. Y.

P. A. Jackson, Acting Chief Engineer, American Writing Paper Company, Inc., Holyoke, Mass.

E. C. Jahn, Student, McGill University, Montreal, P. Q.

F. H. Knowlton, Sales Engineer, A. E. Staley Manufacturing Company, 88 Broad street, Boston, Mass.

R. W. Kumler, Salesman, Bennett, Inc., 2014 Delaware avenue, Wilmington, Del.

W. F. Moore, Student, N. Y. S. College of Forestry, Syracuse.

D. E. Murray, Student, N. Y. S. College of Forestry, Syracuse.

G. A. Oeschle, Superintendent of Coating Mill, Dill & Collins Company, Richmond and Tioga streets, Philadelphia, Pa.

J. F. Ohlson, Chemist, Cornell Wood Products Co., Cornell, Wis.

C. P. Robinson, Sales Manager, Borregaard Company, 200 Fifth avenue, New York, N. Y.

J. R. Salvesen, American Scandinavian Foundation Fellow at Marathon Paper Mills Company, Rothschild, Wis.

Fred Schorken, Chemist, St. Regis Paper Company, Norfolk, N. Y.

Norman Spackman, Foreman, Bleach Making Plant, British Columbia Pulp and Paper Company, Ltd., Port Alice, B. C.

R. R. Stoltz, Sales Engineer, Westinghouse Electric and Manufacturing Company, East Pittsburgh, Pa.

B. Ullstrand, Sulfitaktiebolaget Ljusnan, Wallvik, Sweden.

V. F. Waters, Mechanical Engineer, 910 Estival place, Memphis, Tenn.

Edward Weber, Resident Manager, National Aniline and Chemical Company, 357 West Erie street, Chicago, Ill.

Vernon Woodside, Student, N. Y. S. College of Forestry, Syracuse, N. Y.

W. S. Woodson, Jr., Chief Chemist, Albemarle Paper Manufacturing Company, Richmond, Va.

W. A. Wylde, General Superintendent, Kaydeross Paper Company, Inc., Rock City Falls, N. Y.

S. C. Zabriskie, Treasurer, Arthur S. Zabriskie, Inc., 290 Broadway, New York, N. Y.

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Profit Sharing in the Balance*

Profit Sharing and Stock Ownership

By Gorton James and Others.

Eight years intervened between the publication of "Profit-Sharing and Stock Ownership" (which will be herein discussed) and the publication in 1918 of "Profit-Sharing: Its Principles and Practice." The case for profit sharing does not appear, according to these writers, to have been strengthened during this period, and much of the data flavors of warnings and pit-falls to be avoided if profit sharing is not to prove of more harm than good. Whether this indicates an inherent weakness in the principle itself, or is but a matter of improper adaptation is, of course, a moot question. Perhaps, like any new instrument, its potentialities and limitations must be worked out by trial and error.

Profit Sharing Not a New Idea

The book points out that profit sharing is not a new idea. Although at no time in history is there any record of its widespread use, man has experimented with it for many centuries. There are accounts of profit sharing by Roman slave-owners during the later days of the Empire in an effort to get more fruitful efforts from slaves whom they had put in charge of mechanical or business enterprises. In America, interest in profit-sharing has flared up in at least three periods. The first period was in the years of prosperity immediately preceding the panic of 1872; the second prior to the panic of 1892; and the third during the years from the time the United States entered the war up to the business collapse of 1920. In each period there has appeared a widespread vogue of profit sharing schemes of many types, but all three periods terminated with a disastrous and violent depression which temporarily wiped out profits and incidentally brought most of the new schemes to an abrupt end.

The more recent leaning toward stock distribution as a form of profit-sharing rather than a cash distribution seems to hold out hope for more satisfactory and lasting results. Interesting figures from Robert S. Binkerd, Vice-Chairman Commission on Public Relations of the Eastern Railroads, indicate that railroads, public utilities and corporate enterprises since 1918 have added at least three and a half million stockholders, of whom one half million are employees, one million customers, and two millions small investors drawn from the general public. The increases of recorded new employee stockholders in 1925 over 1918 in certain industries were as follows:

Railroad—70,262, street railroad—15,000, gas, etc.—75,000, telephone and telegraph—62,249, packers—7,000, 10 oil companies—21,153, 5 iron and steel companies—87,696.

Most of the literature and discussions of profit sharing have centered upon its application to the rank and file of wage earners. Profit sharing for administrative officers, which has been widely used although less talked about, has been more successful than profit sharing for wage earners. Profit sharing, in this instance, is used to stimulate a sense of responsibility among executives who feel that, in a certain sense, they are but employees of the company or the board of managers, and subject to dismissal the same as other employees. Cash profit sharing with administrative officers has been replaced in popularity to a considerable extent by stock ownership, for it seems that participation in ownership is more effective in meeting the purpose for which profit sharing was intended—to create a sense of mutuality of interest. Officers' participation in ownership has been argued against by some a little unwilling to place entire trust in their officers for fear it would be difficult to get rid of such officers if they should prove undesirable. The growing popularity of plans for stock ownership, however, attest the potency of such plans in securing the officers' best efforts.

Encouraging Team Work

Profits have been shared with the managerial staff with the idea of encouraging team work and to counteract the tendency toward too active rivalry between individuals that comes from incentives based solely on personal results. Where staff officers and sub-executives are separated from administrative officers and the personal contact is lost, profit sharing may be used to stimulate cooperation and a willingness to assume responsibility, and thus to serve as a substitute for personal leadership. Considering branch managers, e.g., of Child's restaurants as similar to the staff in a large organization, an interesting profit-sharing plan of that concern is discussed in some detail. Profits have also been shared with salesmen in the expectation that it will result in developing interest in the final results of the company's business rather than the personal gross sales of salesmen where commission is the basis of remuneration.

But the profit sharing to fill a wage deficiency is condemned not only as a bad labor policy, but also as an illegitimate practice. On the other hand it is legitimate when applied to managerial ranks and administrative officers, where it is apt to be constructive in that it "will elicit those efforts of the imagination which, when concentrated on managerial problems, make the difference between the rare builders of enterprises and those routine managers who simply manage."

COST SECTION

* Law and Labor.

Profits may also be shared with traveling or outside salesmen to stimulate a sense of partnership, for salesmen are largely responsible for securing the good will of customers. They may also be shared with retail salesmen. Securing a spirit of cooperation is of greatest importance where individual actions directly affect the outside relations of a concern or where they directly interpret company policy to outside persons or to the lower ranks within the organization. There is a subtle communication of attitude between employees which may result, e.g., in an employee in a group having a feeling of embarrassment if he is seen by the others to exert himself unduly or beyond certain unconsciously recognized limits. Rather than be criticized by his fellow workers for being over courteous to customers, he will set limits to the service he gives. Providing an element of self-interest, like profit sharing should prove an effective means of correcting such an attitude. Stambaugh Thompson Co., is cited as an example of a company having a plan which successfully meets this situation. Six per cent of inventory value is deducted from the year's profits and the remainder divided equally between company and employees in proportion to salaries. Such excellent results as the following are claimed: Increased sales, "pulling together," attitude of courtesy, alertness, and cordial cooperation, dispensed with floor-walker, salesmen interested in reducing costs and exerted pressure against "soldiering."

Profit Sharing for the Rank and File

Coming to a consideration of profit sharing for the rank and file, the authors declare much disappointment has been experienced when tangible and measureable results have been looked for. Labor turnover, for instance, they declare, if affected at all, is influenced only indirectly. Production apparently has not been speeded up permanently, although, under some circumstances, there have been temporary gains. There is little evidence to support claims that profit sharing reduces waste, and bonus plans and skillful supervision are considered better means for that purpose. Then, too, the maladjustments which cause labor turnover cannot be corrected by incentives, but must be remedied by proper selection, training and adjustment.

"First there should be more careful selection at the time of hiring, but more especially during the first few weeks or months of service. There should be more attention given to training and adjustment of the new employee to his job. Then there should be a fair and attractive promotion policy. And above all the market wage or better must be paid and the employees accorded square and honest treatment.

"With these elements provided, then profit sharing may be used to supplement the other inducements to stay and it may have considerable effect, . . ." The following analysis of the reasons for the abandonment of one profit sharing plan is given as corroborative of the author's conclusion of doubt as to the value of profit sharing when applied to the rank and file.

"First, the enthusiastic administrative use of the plan by its author had been discontinued; second, there had been a lack of variations in the annual distributions so that the connection between them and profits had been lost in the minds of the men; third, the absence of any losses or unusually low profits had removed the initial sense of responsibility with which all had started out; and fourth, when a loss really took place and the loss-sharing feature became operative, interest in the plan suddenly died out. It is doubtful if employees can be convinced that they should participate in losses."

One of Many Instrumentalities

The important thing, according to the authors, to be remembered is that profit sharing in and of itself cannot accomplish much for the rank and file. It should be regarded as but one of the many instrumentalities which organized management has at its command to achieve its main purpose—namely, creating a sense of mutuality of interest between employer and employee. Where such a spirit has been developed, the authors declare it is more apt to be the result of the more recent trend in foremanship toward a leader rather than driver spirit, than to profit sharing. It is conceded, however, that the dollar furnishes a strong incentive, and offers a means that is simple and direct in application. So that in spite of what has been said about the discouraging results in some applications of profit sharing to the rank and file we find a belief that if proper fundamentals are recognized and adhered to profit sharing may have more gratifying effects. Of greatest importance is the recognition that profit sharing without management sharing is more apt to be dangerous than helpful. In other words, profit sharing and management sharing are mutually interdependent. "Only with a reasonable opportunity to participate in the problems of management to the extent and ability of the profit sharer can the full fruits of profit sharing be realized." Profit sharing is then recognized to be a delicate instrument capable of good only under skillful and discriminate use.

Involves a Campaign of Education

The successful introduction of profit sharing, especially among wage earners, involves a campaign of education which must be almost continuous so long as the plan is in operation. Participants must be taught to find some relation between their efforts and profits; confidence in the management's intentions must be established; interest must be developed in the final result of the organization's work which is measured in profits. If it is to prove a really effective incentive, it is necessary not only that the activity of participants shall vitally affect the profit account, but also that they may know it does and how it does.

"In the lower paid groups . . . not only is the connection between the individual's efforts and general profit less, but ordinarily his intellectual ability to perceive the effects upon profits which actually exist is also less. . . . It certainly would be too much to expect the elevator man to recognize that his greater care and interest in his job increases to some degree the year's profits of the concern. But it is easy for the sales manager and the members of his department to see that by successfully conducting a new sales campaign, or by finding a new market, profits may be materially increased."

Educational work may be done by pamphlets, bulletins, lectures, and committee and group meetings for the discussion of matters affecting the profits account, but the personality of the managers will be the most important factor in the success or failure of the plan. The use of spies to keep the management informed about what is going on among employees is condemned, for the reason that such spies are apt to invent something to report if there is nothing. It is like caring for the machinery only when it squeaks. As a more desirable method of keeping in touch with the thoughts of the men, reference is made to the practice of one steel mill superintendent who holds "open house" every Tuesday afternoon to discuss any matters that may be on the workers' minds. A unique plan is that of the B. F. Goodrich Company:

"The company has picked a small group of men who are both temperamentally fitted and experienced to deal with human problems, and has placed them in small offices about the plant, officially authorized and directed to help the employees with their personal problems outside or inside the plant. . . . The fact that these men are there and have at their disposal various means of service for individuals—medical, legal, financial—results in the elimination of many troubles which otherwise might have grown vexatious."

The Mitten Plan is given as an example of a management whose purpose and desires are understood by its employees.

Mutuality of Interest

Some of the examples given in this volume of successful attempts to develop mutuality of interest between employers and employees through profit sharing combined with management sharing include the Maison Leclaire of Paris, which enjoys a reputation for thorough and high grade work in painting all over France, J. T. & J. Taylor of England, and in America the Dutchess

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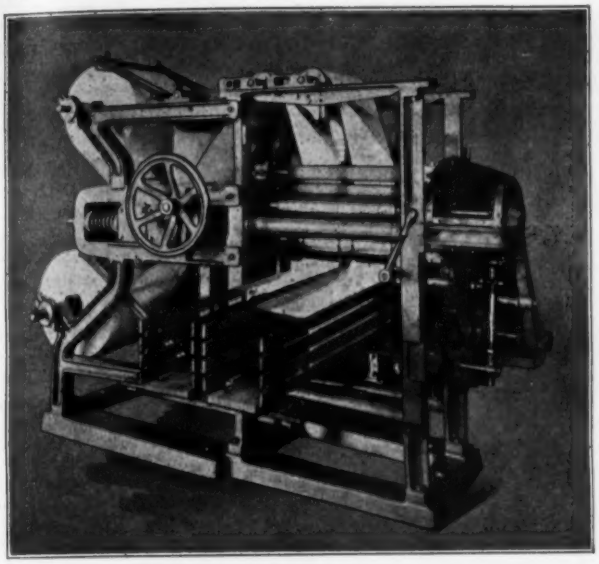

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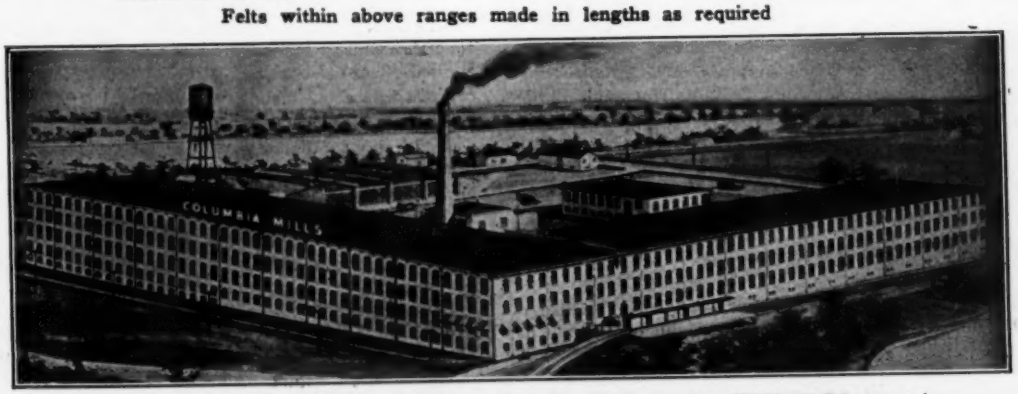

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Bleachery, the Dennison Manufacturing Company, and Leeds & Northrup. The details of most of these plans have been discussed in previous issues of "Law and Labor." One interesting plan to which consideration has not before been given in this periodical is the management and profit sharing plan of the Van Markens Drukkerij-Vennootscap at Delft, Holland. We quote from the book in regard to it:

"J. C. Van Marken developed a plan in a printing establishment which has continued to work successfully through at least three generations of managements. In essence, it concentrates active stock ownership within a group of employees and past employees. The interesting feature is the means by which this concentration is accomplished. There are only 250 voting shares representing the total investment in the company of 25,000 florins by the founder, J. C. Van Marken. These shares are numbered serially.

"The proportion of profits to be distributed to employees after dividends have been paid are not given out direct but, instead, are used to buy back the shares, at book value, in the order of their serial numbers, from whoever holds them at the time. The shares so purchased are distributed to qualified employees in proportion to wages. The person from whom shares are bought in any one year may still be working for the company, in which case they probably receive more shares back, through the distribution, than have been bought from them; or they may have left the company, in which case they receive full value for the shares which are called, but receive no new shares. In this way the ownership of the company is constantly brought back into the active group. Even when some shares are carried off by employees who leave, they are inevitably brought back as soon as the purchasing of shares reaches their serial numbers in the regular rotation, so that the proportion of outside ownership is never large."

Considering the attitude of organized labor toward profit sharing, it is declared that labor's opposition to it may be explained in the light of the following facts: (1) Many profit sharing plans are in non-union shops; (2) some profit sharing companies pay less than the union scale; (3) some plants exact a promise from the worker of longer notice when he is to leave; (4) fear of losing profit may prevent a worker from joining in a strike; and (5) employees seldom request profit sharing themselves. Profit sharing, however, the authors contend, is not necessarily anti-union, for some union concerns use it, and labor's objections can be met if profit sharing does not attempt to curtail the use of collective bargaining and strikes, and if current standards of wages and working conditions are maintained. Profit sharing then can aid in promoting industrial peace, but it alone cannot eliminate strikes. Stock ownership is more favorably looked upon as a means of reducing class consciousness, but "it is idle to believe it will end wage disputes." However, "dickerings will be slightly less rancorous and destructive because of such (stock ownership) participation."

Stock Ownership Preferable

Because of the fact that it arouses a greater sense of community of interest between the employer and his employees, stock ownership is thought preferable to cash profit sharing. But all bonus payments, whether production, gift, or merit, per cent on wages, cost of living, or service should be excluded from profit sharing schemes proper as well as all insurance or saving plans and mutual benefit, thrift, and group insurance, on the theory that workers should be taught the difference between savings investments and business risks. This important business principle is too little understood or appreciated by those not acquainted with business principles. While higher managerial ranks understand stock and bond transactions, foremen, sub-executives, etc., are surprisingly ignorant. These latter learn quickly, but with wage-earners there is not only the practical danger of stock bought with their hard-earned savings becoming a source of enmity if anything goes wrong, but there is also the ethical question whether a company has a right to sell stock to persons who do not understand and perhaps cannot grasp the difference between the investment of savings and the speculative risks of business. For this reason, some companies restrict their offerings to managerial ranks or else offer only preferred stocks or other prior-lien securities to employees. The Chicago, North Shore & Milwaukee Railroad which sold 7 per cent cumulative prior-lien debentures to employees, is cited as example of the proper type of security for this purpose. The principles and purposes of outstanding employee stock ownership plans outlined in this volume have been discussed in previous issues of "Law and Labor."

It is expected that employee minorities will learn to organize and demand a voice if they lose confidence in managements because ownership will represent a large portion of, if not their entire savings, and because they are dependent for their daily job on the company in which they own stock. "This points to the advisability of granting some kind of representation in corporate affairs to minority holders instead of giving the majority complete control as we do now. Under such an arrangement, the majority would still have the majority voice, but the minority would be audible when it wanted to be and would possess the safety valve that industry might do well to provide before it goes further with employee ownership." To give minority groups proper representation, the Hare system of proportional representation is recommended.

Thus it would seem that stock ownership should prove an effective means of reducing the class consciousness which the uncertain position in which the worker finds himself as a wage earner has engendered, because by giving him a stake in industry, it places him in the owner or investor group, and his interests are allied with those of industry. That community of interest which was lost when the machine separated the employer from his employees can best be restored by a diffusion of ownership. In the language of the authors: "It seems reasonable to hope that the diffusion of ownership will result in a closer realization of democracy in industry." Democracy in the ownership of industry seems at present to be the most practical and sensible solution to the perplexing problems which the coming of modern industry has entailed.

News of the Boston Paper Trade

[FROM OUR REGULAR CORRESPONDENT]

BOSTON, Mass., June 4, 1928.—A new method of packing wedding announcements is being introduced by the Carter, Rice & Co. of Boston. The various foils are all packed in one box, in direct contrast to the old method, when several packings were required before they were ready for the engraver. This method will also be of ultimate benifit to the consumer. Although this is primarily an experiment, it is an improvement over the old method and will probably be adopted in the future.

John Carter & Co., of Boston, are distributing the new sample books of Milford Bond papers among their clientele. These samples are of unique design and uncover a novel array of specimen letter heads.

The new sample sheets of Wheelrights Best Plate Finish paper is also being circulated about New England by John Carter & Co. Showing the first samples of the B. P. F. colors, this paper should be of exceptional value for half-tone work.

The New England distributors for Dill & Collins papers have added the new Ivory to their line of Dulbrite coated book papers.

Sample books showing Veteran Cover have been distributed to the New England trade by the Charles A. Esty Paper Company, of Boston, Worcester and Springfield. Veteran Cover has the strength of leather—an entirely new finish and is made in colors that are appropriate for high grade advertising pieces, loose leaf covers, etc. It is especially adaptable to the hot die process. Stocks are ready for delivery from 288 Congress street, Boston, Mass.

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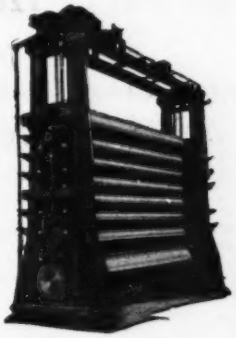

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Paper hangings	41 bls., 15 cs.
News print	1,424 rolls, 19 bls.
Printing paper	34 cs.
Wrapping paper	43 rolls, 60 bls., 59 cs.
Packing paper	78 cs.
Stencil paper	10 cs.
Stencil paper and ink	82 cs.
Pergamyn paper	16 cs.
Aluminum paper	2 cs.
Colored paper	23 cs.
Filter paper	37 bls., 15 cs.
Drawing paper	1 cs.
Note paper	3 cs.
Envelopes	37 bls.
Writing paper	9 cs.
Gold coated paper	3 cs.
Surface coated paper	80 cs.
Basic paper	52 cs.
Photo paper	4 cs.
Tissue paper	10 cs.
Decalcomania paper	47 cs.
Miscellaneous paper	822 rolls, 239 bls., 66 cs.

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Max Spiegel Sons & Co., Inc., Pr. Garfield. Genoa, 23 bls.
British American Tobacco Co., Paris, Havre, 60 cs.
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P. Lorillard & Co., Singapore Maru, Hamburg, 97 cs.

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NEWS PRINT

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A. S. Zabriskie, Dresden, Bremen, 126 rolls.
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Wilkinson Bros. & Co., Inc., Kolsnaren, Norrkoping, 170 bls., 802 rolls.
H. Reeve Angel & Co., Inc., Kolsnaren, Norrkoping, 20 rolls.
Walker Goulard Plehn Co., Kolsnaren, Norrkoping, 69 bls.
E. H. Sargent & Co., Stockholm, Gothenburg, 8 cs.

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Jaffe Products Co., Tercero, Havana, 27 bls. rags.
Chemical National Bank, Caucasier, Antwerp, 235 bls. rags.
Banco Com'l Italiane Trust Co., Gen'l Petitti, Palermo, 130 bls. rags.
American Exchange Irving Trust Co., City of Alton, Rotterdam, 23 bls. cotton waste.
Castle & Overton, Inc., Tergestea, Italy, 121 bls. rags.
E. J. Keller Co., Inc., Carenco, ——, 170 bls. rags

OLD ROPE

American Exchange Irving Trust Co., California, Glasgow, 67 coils.
E. Butterworth & Co., Inc., Cedric, Liverpool, 249 bls.
Banco Com'l Italiane Trust Co., Washington Maru, Naples, 137 bls.
International Purchasing Co., Stavangerfjord, Oslo, 65 coils, 5 bls.
International Purchasing Co., West Eldara, Antwerp, 833 coils.

CHINA CLAY

L. A. Salomon & Bros., Cedric, Liverpool, 35 csks, 160 bags.

CASEIN

Tradesmans National Bank, Vandyck, B. Aires, 84 bags.
Atterbury Bros., Inc., Tercero, B. Aires, 834 bags, 50,040 kilos.

WOOD PULP

Castle & Overton, Inc., Korsholm, Sweden, 150 bls. wood pulp.
Buck Kiaer & Co., Inc., Korsholm, Stockholm, 300 bls. chemical pulp.
E. J. Keller Co., Inc., New York, ——, 839 bls. wood pulp, 129 tons.
Castle & Overton, Inc., New York, Hamburg, 734 bls. wood pulp, 110 tons.
Chemical National Bank, Stavangerfjord, Oslo, 1376 bls. sulphite.
Atterbury Bros., Inc., Stavangerfjord, Oslo, 500 bls. wood pulp.
M. Gottesman & Co., Inc., Kolsnaren, Sundsvall, 1,975 bls. sulphite.
Scandinavian Pulp Agency, Inc., Kolsnaren, Sundsvall, 1,100 bl sulphite.
Buck Kiaer & Co., Inc., Kolsnaren, Stockholm, 300 bls. sulphite.
Scandinavian Pulp Agency, Inc., Kolsnaren, Skutskar, 3,605 bls. wood pulp.
E. M. Sergeant & Co., Stockholm, Gothenburg, 200 bls. sulphite; 59 bls. dry soda pulp.
Woodpulp Service Corp., Stockholm, Gothenburg, 200 bls. sulphite.
Scandinavian Pulp Agency, Inc., Stockholm, Gothenburg, 127 bls. sulphite.
Buck Kiaer & Co., Inc., Norefjord, Greaker, 375 bls. sulphite.

WOOD FLOUR

B. L. Soberski, Norefjord, Frederickstad, 2,775 bags.
Corn Exchange Bank, Norefjord, Flekkefjord, 400 bags.

BOSTON IMPORTS

WEEK ENDING JUNE 2, 1928

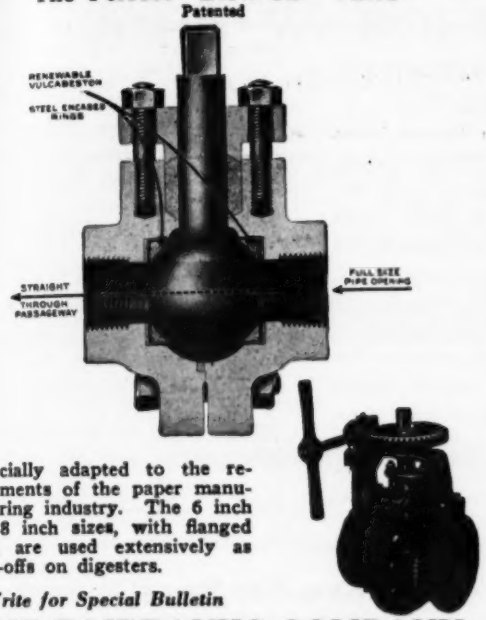
Kalbfleisch Corp., Brazillian Prince, B. Aires, 417 bags casein, 55,159 bls.
1st National Bank of Boston, Brazillian Prince, B. Aires, 417 bags casein, 25,020 kilos.

(Continued on page 98)

FAIRBANKS' "SPHERO"

The Perfect "Blow-Off" Valve

Patented



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Write for Special Bulletin

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For Southern Paper Co., two orders, total 4700 H.P.
For St. Croix Paper Co. .....1200 H.P.
For Brown Paper Mill Co. .....3430 H.P.
Central Paper Co., Muskegon, Mich., four orders, total .....3100 H.P.
Philadelphia Paper Mfg. Co., Phila., three orders, total .....2400 H.P.
Jessup & Moore Paper Co., Phila., four orders, total .....4750 H.P.
Ontario Paper Co., Ltd.
For Daily Newspaper Co., North Tonawanda, N. Y. .....2034 H.P.
Filer Fibre Company, Filer City, Mich. .....1500 H.P.
John Lang Paper Co., Philadelphia, Pa..... 416 H.P.
Bayless Manufacturing Corp., Austin, Pa.....1300 H.P.
Northern Board & Paper Co., San Francisco, Cal., two orders, total ..... 400 H.P.
Crown Willamette Paper Co., San Francisco, Cal., two orders, total ..... 750 H.P.
Delaware Hard Fibre Co., Wilmington, Del., two orders, total ..... 920 H.P.
Kieckhefer Container Co., Delair, N. J. .....1800 H.P.

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1019 Guardian Life Bldg., St. Paul

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MACHINE FINISHED BOOK
and LITHOGRAPHIC
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New York Chicago
503 Market St., San Francisco, Cal.
122 East 7th St., Los Angeles, Cal.
Sixth and Chestnut Sts., Philadelphia, Pa.

Imports of Paper and Paper Stock

(*Continued from page 96*)

National City Bank, Brazillian Prince, B. Aires, 84 bags casein, 5,040 kilos.

Brown Bros. & Co., Francisco, Hull, 234 bls. old rope.

J. B. Moors & Co., Francisco, Hull, 189 bls. rags.

National City Bank, Korsholm, Stockholm, 1,050 bls. sulphite.

Buck Kiaer & Co., Inc., Korsholm, Stockholm, 2,100 bls. chemical pulp.

Lagerloef Trading Co., Korsholm, Helsingfors, 172 bls. wood pulp boards.

Green Hamilton & Co., City of Alton, Rotterdam, 154 bls. cotton waste.

BALTIMORE IMPORTS.

WEEK ENDING JUNE 2, 1928

National City Bank, Maryland, Havre, 227 bls. rags.

Congoleum Nairn Co., West Eldara, Antwerp, 1,188 bls. rags.

National City Bank, Gen'l Petitti, Palermo, 319 bls. rags.

E. J. Keller Co., Inc., Blydendyk, ——, 900 bls. wood pulp.

PHILADELPHIA IMPORTS.

WEEK ENDING JUNE 2, 1928

Brown Bros. & Co., London Exchange, London, 111 bls. old rope.

Bank of The Manhattan Co., London Exchange, London, 69 bls. old rope.

G. M. Graves Co., Inc., London Exchange, London, 126 bls. rags.

Equitable Trust Co., Luxpalile, Naples, 137 bls. rags.

Gilman Paper Co., Kolsnaren, Norrkoping, 137 rolls news print.

Wilkinson Bros. & Co., Inc., Kolsnaren, Korrkoping, 11 bls. paper.

Pagel Horton & Co., Inc., Kolsnaren, Gefle, 500 bls. sulphate.

Hudson Trading Co., Kolsnaren, Sundsvall, 12 rolls news print.

Kidder Peabody Accep. Corp., Maryland, Dunkirk, 106 bls. rags.

Katzenstein & Keene, Inc., Maryland, Dunkirk, 215 bls. rags.

Phila. Girard National Bank, Maryland, Havre, 50 bls. rags.

National Bank of Commerce, 294 bls. rags; 29 bls. new cuttings.

Chase National Bank, Maryland, Havre, 131 bls. rags.

S. Birkenstein & Son, City of Alton, Rotterdam, 63 bls. old rope.

E. J. Keller Co., Inc., City of Alton, —, 649 bls. rags.

E. J. Keller Co., Inc., Gilda, ——, 300 bls. rags; 80 bls. bagging.

Castle & Overton, Inc., Sarcoxie, France, 234 bls. rags.

Castle & Overton, Inc., Lorain, Germany, 54 bls. rags.

Castle & Overton, Inc., Bristol City, England, 154 bls. rags.

NORFOLK IMPORTS.

WEEK ENDING JUNE 2, 1928

E. Butterworth & Co., Inc., West Eldara, Antwerp, 210 bls. bagging.

N. Y. Trust Co., West Eldara, Antwerp, 131 bls. bagging.

Darmstadt Scott & Courtney, West Eldara, Antwerp, 150 bls. bagging.

British American Tobacco Co., West Eldara, Antwerp, 25 cs. printed cigarette wrappers.

NEWPORT NEWS IMPORTS.

WEEK ENDING JUNE 2, 1928

British American Tobacco Co., West Eldara, Antwerp, 50 rolls wrapping paper.

U. S. Corrugated Fiber Box Co. Starts

[FROM OUR REGULAR CORRESPONDENT]

DAYTON, Ohio, June 3, 1928.—The United States Corrugated Fiber Box Company, located in West Dayton, is one of the newest industries to be developed in Dayton. The new three-story factory building is located between the plants of the McCall Publishing Company and the Inland Manufacturing Company, and cost approximately $275,000, exclusive of the site which is ample for all purposes.

The plant, which is to give employment regularly to 150 or more persons, has a capacity of 75 car loads of corrugated boxes per month, and will supply all of the company's customers in the Miami Valley and the Central Ohio valley.

Through the location of the concern here, approximately $200,000 will be added to the annual payroll of this city.

The same concern is operating plants in Indianapolis, Ind., and Wheeling, W. Va. The headquarters of the company are in the Hoosier capital where a large business has developed.

It has been found practicable to locate plants closer to the point of distribution and the Dayton location is considered ideal for this section of the country. Rapid shipments are made within easy railroad or automobile delivery.

The United States Corrugated Fiber Box Company was organized in Indianapolis in 1912 by Howard J. Lacey, Sr., president of the concern, and R. J. Hauser, the secretary, both of whom have supervised the installation of machinery and have attended to the details of purchasing the site from the Daniel B. High estate, the plant being located along the Baltimore & Ohio railroad in the new industrial section of West Dayton.

Paper Index Number for April

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., June 6, 1928.—The April index number for paper production was 103 compared with 105 for March and 113 for April of last year, taking 1919 at 100, according to the Department of Commerce.

John R. Draper Rents Saxer Paper Mills

The item in the PAPER TRADE JOURNAL of May 17, 1928, stating that John R. Draper had bought the Saxer Paper Mills, Inc., was incorrect. Mr. Draper has rented the mill but has not bought the property.

Paper Bag Plant Planned at Orange

ORANGE, Texas, June 1, 1928.—Officials of the Yellow Pine Paper Mill Company last week announced that a contract had been closed bringing to Orange a paper bag manufacturing plant.

A building for the use of the new manufacturing concern will be provided by the Yellow Pine Paper Mill Company on property adjoining the company's paper mill, it was announced.

Plans for the building of the new paper bag plant are expected to reach contractors here in the next few days. The work will be rushed to completion as rapidly as possible. It is estimated that it will take sixty days to prepare the building and install the equipment.

Ernest Mahler Gets Patent

[FROM OUR REGULAR CORRESPONDENT]

APPLETON, Wis., June 4, 1928.—Ernest Mahler, vice president and general superintendent of the Kimberly-Clark Company, of Neenah, Wis., has been granted a patent on a process and apparatus for applying deodorizing and disinfecting powder to sanitary pads. His patents will be used in the Kotex Company mills at Neenah.

Paper Executive Honored

[FROM OUR REGULAR CORRESPONDENT]

DENVER, Col., May 31, 1928.—J. Harry Custance, general manager of the Carter, Rice & Carpenter Paper Company of Denver was elected chairman of the Jobbers Bureau of the Denver Chamber of Commerce, May 29, for the fiscal year.

Alfred Bryant Goes to Newton Falls

NEWTON FALLS, N. Y., June 4, 1928.—Alfred Bryant formerly superintendent of the Watervliet Paper Company at Watervliet, has recently accepted a position as superintendent of the Newton Falls Paper Company at Newton Falls, N. Y.

C. A. Champion Goes With Millers Falls Paper Co.

MILLERS FALLS, Mass., June 4, 1928.—Charles A. Champion for twenty-two years superintendent of the Berkshire Hills Paper Company of Adams, Mass., recently became mill manager of the Millers Falls Paper Company at Millers Falls, Mass.

BOLTON QUALITY

JOHN W. BOLTON & SONS, INC.

EAGLE KNIFE & BAR WORKS

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The only firm making KNIVES for every machine from wood pile to finishing room.

It's the KNIVES that do the work!

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We like to have you ask about the quality of Heller & Merz dyestuffs. No questions are evaded. These colors are made to the requirements of modern, scientific demand. That is why we believe Heller & Merz dyestuffs will satisfy you as they are satisfying so many exacting users.

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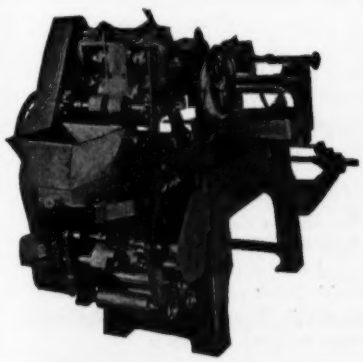

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Paper Bag Machinery

Get My Quotations Before Placing Your Orders
Special Machinery Designed and Built

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New York Market Review

Office of THE PAPER TRADE JOURNAL,
Wednesday, June 6, 1928.

Conditions in the local paper market were mostly seasonal during the past week. Demand for the various grades of paper was moderately active. Prices were generally maintained at previously recorded levels, with little talk of shading. Sales forces of the leading organizations are still booking some good orders and no decided slump in business has been experienced so far.

News print production in the United States and Canada averaged 80 per cent of capacity during the past week, according to statistics gathered by the News Print Service Bureau. Demand is well up to average for the time of the year and competition for desirable orders is very keen. Generous concessions are being made on contracts signed for the forthcoming year.

The paper board market is exhibiting a strong undertone. Production is being maintained in sufficient volume to take care of current needs. Some improvement was noticed in the demand for box board. Prices remain steady and unchanged. The fine paper market is in a sound position while the request for tissues is excellent. The coarse paper market is practically unchanged and wrapping paper is moving in a satisfactory manner.

Mechanical Pulp

Most of the business transacted in the ground wood market during the past week was along routine lines. While the demand for mechanical pulp is light at present and is mostly for immediate requirements, contract shipments are proceeding in satisfactory volume. Prices are generally holding up to schedule and there is not much talk of concessions around.

Chemical Pulp

While offerings of chemical pulp are slightly larger than for some time past, due mainly to the arrival of shipments from abroad, there are no undue accumulations, and the trend of the local market is steady. Although few large sales have been reported, a fair volume of small orders for immediate needs have been transacted. Quotations on the various grades of chemical pulp rule steady and practically unchanged.

Old Rope and Bagging

Domestic and imported old rope are both in somewhat better request. Mixed strings are exhibiting a strong undertone. Prices are holding up to schedule, in most instances. Roofing bagging is in excellent demand at present and, as offerings are limited, prices are steady to firm. Gunny and burlap are proceeding along routine lines.

Rags

More interest is being displayed by the paper mills in domestic cotton cuttings. Prices of the various grades are holding up to previous levels. Offerings of mixed rags are ample and are in sufficient quantity to cope with the current request. Some improvement has been noticed in the demand for the higher grades of imported rags, but the market abroad is still considered too high.

Waste Paper

Although the inquiry for book stock has quietened down somewhat, supplies are still scarce, and prices rule steady to firm. Mixed papers are in excellent request and are bringing satisfactory prices. Demand for soft white shavings, which are now being used by some mills for manufacturing book paper, are also in a strong position. Old kraft machine compressed bales continue to move in good volume.

Twine

Trading in the twine market during the past week was mostly along routine lines. In the opinion of competent observers, the industry is in an excellent position for the time of the year. Demand for the various grades is persistent and quotations are being maintained at the level which has prevailed for some considerable time.

Safety Conference to Meet at Oshkosh

[FROM OUR REGULAR CORRESPONDENT]

APPLETON, Wis., June 4, 1928.—Three addresses are scheduled for the pulp and paper section of the Fourth Annual Fox River Valley Safety Conference at Oshkosh, Wednesday, June 6. About 500 representatives of various mills are expected to be in attendance.

This sectional meeting in the morning is to be held at the Fischer theater, in order to accommodate a large number. W. F. Ashe, of the Thilmany Pulp and Paper Company, of Kaukauna, Wis., will be the chairman.

H. G. Noyes, director of paper mill education in Wisconsin vocational schools, is to speak on "The Foreman—A Teacher of Safety." The second speaker will be Voyta Wrabetz, commissioner of the Wisconsin Industrial Commission, whose subject is "Life, Health and Pursuit of Happiness." L. J. Parrish, of the A. O. Smith Corporation, Milwaukee, is the third speaker. His subject will be "A Safety Philosophy."

Three other sectional meetings will be held during the morning by industries in other lines. All delegates, numbering about 1,500, will assemble together in the afternoon to hear addresses which will include one by John Lundrigan, industrial superintendent of the International Paper Company, of New York City. The gathering will close with a banquet in the evening at which Glenn Frank, president of the University of Wisconsin, will give an address on "Safety."

Floral Display at Superintendents' Banquet

The floral decorations which graced the tables at the banquet on Thursday evening last, at the Superintendents' Convention at Pittsfield, were furnished by Gibbs-Brower Company, the pulp and paper mill brokers, of New York. In addition to the table decorations they provided each of those attending the banquet with a boutonniere.

Awards for Government Paper

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., June 6, 1928.—Barton, Duer & Koch Paper Company has been awarded the contract for furnishing the Government Printing Office with 20,000 pounds of M.F. printing paper for monotype keyboard rolls in 27½ inch rolls at 6.49 cents per pound, bids for which were received on May 9.

Horizontally Split Casing Double Suction Pumps

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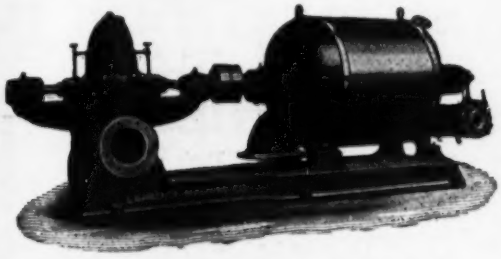
We are the original designers and builders of the LAWRENCE PUMP.



Lawrence pumps for all conditions and services. Forty-four years of practical experience with centrifugal pump development places us among the leaders. Our efforts have been rewarded by the acceptance of our product in general.

Thousands of installations and the successful performance of our pumps should be sufficient proof of our ability to handle your pumping problems. Our engineering force is at your command.

Have only Lawrence Pumps, manufactured by the

Lawrence Machine Company

361 Market St. Lawrence, Mass.

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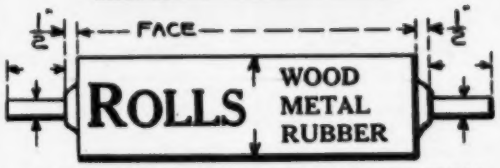

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Get *Long* Service *from* Every Felt

Strong rolls protect your felts against accidents while weak rolls are liable to develop loose shafts unexpectedly and damage costly felts.
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NO TROUBLE NOW FROM SLIP.

RHOADS TANNATE CARRIES THE LOAD

Where Rubber Failed.

IN a Chicago paper mill a 36-inch, 3-ply Rhoads Tannate Watershed Leather Belt recently replaced a 36-inch, 10-ply rubber. The rubber belt slipped so badly that they had to increase the speed of the engine to deliver sufficient pulp. And the rubber belt proved short lived.

The Tannate Belt took hold immediately and pulled the maximum load so easily that they cut down the speed to prevent excess pulp being pumped into the Jordans. Rhoads Tannate has the grip and long life that make it pay.

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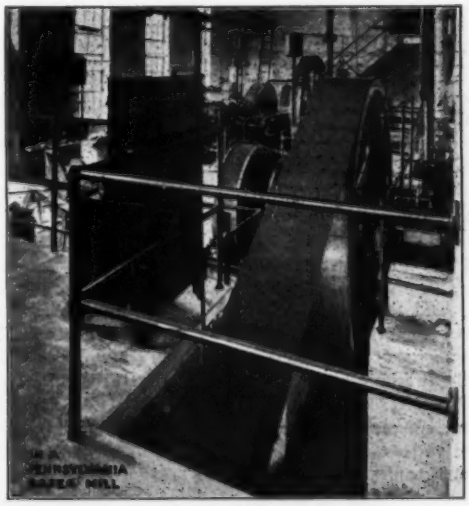

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Acid Resisting Bronze

Special Machinery Built to Order

D. J. MURRAY MFG. CO.

WAUSAU, WIS.

Miscellaneous Markets

Office of THE PAPER TRADE JOURNAL,
Wednesday, June 6, 1928.

BLANC FIXE.—Most of the business transacted in the blanc fixe market during the past week was along routine lines. Prices remain unchanged. The pulp is quoted at $50 per ton, in bulk, while the powder is selling at from 4¼ cents to 4⅜ cents a pound, in barrels, at works.

BLEACHING POWDER.—The bleaching powder market is fairly steady, although the demand for this product is light. Supplies are moving into consumption in moderate volume. Prices remain unaltered. Bleaching powder is offered at from $2 to $2.35 per 100 pounds, in large drums, at works.

CASEIN.—Trading in the casein market has quieted down somewhat and prices are weaker. Offerings are large enough to take care of current needs. Domestic casein is selling at from 15¼ cents to 16½ cents a pound. Imported casein is quoted at from 15¾ cents to 16½ cents a pound, all in bags, car lot quantities.

CAUSTIC SODA.—Demand for caustic soda is excellent and contract withdrawals are proceeding at a good pace. Prices are unchanged. Solid caustic soda is still quoted at from $2.90 to $2.95 per 100 pounds. The flake and the ground are selling at from $3.30 to $3.35 per 100 pounds, in large drums, at works.

CHINA CLAY.—Business in the china clay market is well up to average. Contract shipments are moving in satisfactory volume. Prices are unchanged. Imported china clay is selling at from $15 to $25 a ton, in bulk, ship side. Domestic clay is quoted at from $8 to $9 a ton, and pulverized at from $10 to $12 a ton.

CHLORINE.—Steadiness continues to prevail in the chlorine market. Supplies are moving into consumption in heavy volume. Prices remain unaltered. Chlorine is quoted at 3½ cents a pound, in tanks, or multi-unit cars, at works, on contract orders. The spot quotation ranges from 3¾ cents to 4 cents a pound.

ROSIN.—The rosin market continues quiet. Demand is light and prices again declined. At the naval stores, gum rosin is now selling at from $8.55 to $8.80 per 280 pounds, ex-dock, in barrels. Wood rosin is unchanged and is still offered at from $6.50 to $7.30 per 280 pounds, southern shipping points.

SALT CAKE.—Conditions in the salt cake market are satisfactory and the market was quite active during the past week. Contract shipments are going forward in a regular manner. Salt cake is quoted at from $15 to $17 a ton, in bulk, at works. Chrome sale cake is selling at from $14 to $15 a ton, in bulk, at works.

SODA ASH.—Contract withdrawals of soda ash are moving in excellent volume for the time of the year. Demand is persistent and the undertone of the market is sound. Prices remain steady and unchanged. Contract quotations on soda ash, in car lots, at works, are as follows: in bags, $1.32½, and in barrels, $1.55.

STARCH.—The starch market is practically unchanged. While trading has quietened down, prices are generally holding to previously quoted levels. Supplies are moving into consumption in a normal manner. Special paper making starch is still selling at $4.12 per 100 pounds, in bags, and at $4.29 in barrels.

SULPHATE OF ALUMINA.—No radical changes were recorded in the sulphate of alumina market. Prices remain unchanged. Commercial grades of sulphate of alumina are quoted at from $1.40 to $1.55 per 100 pounds, in bags, at works. The iron free is selling at from $1.90 to $2.05, in barrels, at works.

SULPHUR.—The sulphur market is in a sound position. Demand is well sustained and supplies are moving into consumption in satisfactory volume. Prices are holding to schedule. Sulphur is selling at from $18 to $19 a ton, in bulk, at mine, on contract orders. The spot quotation is $20 per ton.

TALC.—Manufacturers of talc are receiving a good volume of inquiries for future business. Offerings are sufficient to take care of current requirements. Domestic talc is offered at from $16 to $18 a ton, at mine. Imported talc is still quoted at from $18 to $20 a ton, ship side.

Market Quotations

Paper

(F. o. b. Mill)

Ledgers	11.00	@38.00
Bonds	9.00	@45.00
Writings—		
Extra Superfine	14.00	@32.00
Superfine	14.00	@32.00
Tub sized	10.00	@15.00
Engine sized	8.00	@11.00
News—		
Rolls, contract	3.25	@ —
Rolls, transient	3.25	@ 3.50
Sheets	3.65	@ 3.85
Side Runs	3.00	@ 3.75
Book, Cased—		
S. & S. C.	6.35	@ 7.75
M. F.	6.25	@ 7.75
Coated and Enamel	8.00	@15.00
Lithograph	8.00	@15.00
Tissues—Per Ream—		
White No. 1	.75	@ 1.00
Anti-Tarnish	1.10	@ 1.90
Colored	1.00	@ 2.00
White No. 2	.75	@ .85
Kraft	.90	@ 1.00
Manila	.75	@ .85
Kraft—		
No. 1 Domestic	6.25	@ 6.50
No. 2 Domestic	4.50	@ 4.75
Southern	4.25	@ 4.50
Imported	6.50	@ 7.00
Manila—		
No. 1 Jute	9.00	@ 9.25
No. 2 Jute	7.75	@ 8.50
No. 1 Wood	4.75	@ 5.25
No. 2 Wood	4.00	@ 4.50
Butchers	3.75	@ 4.25
Fibre Papers—		
No. 1 Fibre	5.00	@ 5.50
No. 2 Fibre	4.75	@ 5.25
Common Bogus	2.75	@ 3.00
Screenings	3.00	@ 3.25
Card Middles	4.00	@ 5.00
Glassine—		
Bleached, basis 25 lbs.	13.00	@16.00
Bleached, basis 20 lbs.	15.00	@16.00

(Delivered New York)

Boards—per ton—		
News	47.50	@50.00
Straw	52.50	@55.00
Chip	45.00	@47.50
Binders' Boards	65.00	@67.50
Sgl. Mla. Ll. Chip.	52.50	@55.00
Wood Pulp	80.00	@85.00
Container	67.50	@72.50
85 test Jute Liner.	57.50	@60.00

Mechanical Pulp

(Ex-Dock)

No. 1 Imported—		
Moist	30.00	@31.25
Dry	32.00	@34.00

(F. o. b. Mill)

No. 1 Domestic	26.00	@29.00
Screenings	15.00	@20.00

Chemical Pulp

(Ex-Dock, Atlantic Ports)

Sulphite (Imported)—		
Bleached	3.65	@ 4.25
Easy Bleaching	2.70	@ 2.90
No. 1 strong unbleached	2.60	@ 2.70
Mitscherlich unbleached	2.65	@ 3.25
No. 2 strong unbleached	2.50	@ 2.60
No. 1 Kraft	2.60	@ 2.75
No. 2 Kraft	2.40	@ 2.50
Sulphate—		
Bleached	3.75	@ 3.85

(F. o. b. Pulp Mill)

Sulphite (Domestic)—		
Bleached	3.40	@ 4.75
Easy Bleaching Sulphite	2.60	@ 2.75
News Sulphite	2.40	@ 2.65
Mitscherlich	3.00	@ 3.70
Kraft (Domestic)	2.70	@ 3.30
Soda Bleached	3.35	@ 3.50
Sulphate Screenings—		
Coarse	.75	@ .85
Refined	1.50	@ 1.65

Domestic Rags

New Rags

(Prices to Mill f. o. b. N. Y.)

Shirt Cuttings—		
New White, No. 1.	11.75	@12.25
New White, No. 2.	8.00	@ 8.50
Silesias No. 1	7.25	@ 7.75
New Unbleached	10.50	@11.00
Washables	4.25	@ 4.75
Fancy	5.50	@ 6.00
Blue Overall	6.75	@ 7.25
New Blue Prints	5.25	@ 5.50
New Soft Blacks	5.25	@ 5.75
Mixed Khaki Cuttings	4.75	@ 5.25
Pink Corset Cuttings	8.00	@ 8.50
O. D. Khaki Cuttings	5.25	@ 5.75
Men's Corduroy	3.75	@ 4.25
New Mixed Blacks	3.50	@ 3.75

Old Rags

White, No. 1—		
Repacked	5.50	@ 6.00
Miscellaneous	4.50	@ 5.00
White, No. 2—		
Repacked	3.00	@ 3.50
Miscellaneous	2.50	@ 2.75
St. Soiled, White	2.00	@ 2.15
Thirds and Blues—		
Repacked	2.25	@ 2.50
Miscellaneous	1.75	@ 2.00
Black Stockings	3.25	@ 3.75
Roofing Rags—		
Cloth Strippings	1.70	@ 1.80
No. 1	1.70	@ 1.80
No. 2	1.55	@ 1.65
No. 3	1.30	@ 1.40
No. 4	1.25	@ 1.35
No. 5A	.95	@ 1.05

Foreign Rags

New Dark Cuttings	2.50	@ 3.00
New Mixed Cuttings	2.75	@ 3.25
Ord. Light Prints	2.25	@ 2.50
New Light Silesias	7.00	@ 7.50
Light Flannelettes	7.50	@ 8.00
Unbleached Cottons	10.00	@11.00
New White Cuttings	10.50	@11.50
New Light Oxfords	7.00	@ 7.50
New Light Prints	5.50	@ 6.50
No. 1 White Linens	7.25	@ 8.00
No. 2 White Linens	5.50	@ 6.25
No. 3 White Linens	4.50	@ 5.00
No. 4 White Linens	3.00	@ 3.50
Old Extra Light Prints	2.75	@ 3.25
Med. Light Prints	1.90	@ 2.10
Dutch Blue Cottons	2.25	@ 2.50
German Blue Linens	2.50	@ 2.75
German Blue Cottons	2.00	@ 2.25
Checks and Blues	1.75	@ 2.00
Lindsay Garments	1.85	@ 1.95
Dark Cottons	1.55	@ 1.65
Old Shopperies	1.50	@ 1.55
New Shopperies	1.45	@ 1.55
French Blues	2.10	@ 2.25

Old Rope and Bagging

(Prices to Mill f. o. b. N. Y.)

Gunny No. 1—		
Foreign	1.65	@ 1.75
Domestic	1.70	@ 1.75
Wool Tares, light	1.60	@ 1.65
Wool Tares, heavy	1.60	@ 1.65
Bright Bagging	1.60	@ 1.65
Small Mixed Rope	1.25	@ 1.40
Manila Rope—		
Foreign	3.00	@ 3.25
Domestic	3.25	@ 4.00
New Burlap Cut	2.75	@ 3.00
Hessian Jute Threads—		
Foreign	3.50	@ 4.00
Domestic	3.25	@ 3.50

Old Waste Papers

(F. o. b. New York)

Shavings—		
Hard, White, No. 1	3.25	@ 3.50
Hard, White, No. 2	2.75	@ 3.00
Soft, White, No. 1.	2.60	@ 2.85
Flat Stock—		
Stitchless	1.85	@ 1.95
Overissue Mag.	1.90	@ 2.00
Solid Flat Book	1.75	@ 1.80
Crumpled No. 1	1.35	@ 1.45
Solid Book Ledger	2.00	@ 2.10
Ledger Stock	1.80	@ 1.90
Manilas—		
New B. B. Chips	.65	@ .75
New Env. Cut	2.40	@ 2.60
New Cuttings	1.60	@ 1.85
Extra No. 1 old	1.25	@ 1.35
Print	.75	@ .85
Container	.60	@ .70
Bogus Wrapper	.75	@ .85
Old Kraft Machine Compressed bales	1.80	@ 1.90
News—		
No. 1 White News	1.55	@ 1.65
Strictly Overissue	.80	@ .90
Strictly Folded	.60	@ .70
No. 1 Mixed Paper	.45	@ .50
Common Paper	.30	@ .35

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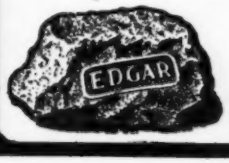

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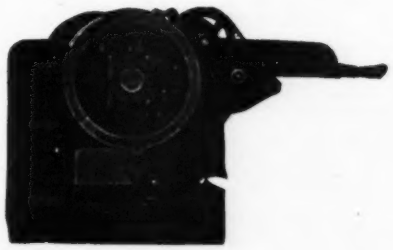
RIEGELSVILLE, N.J. U.S.A.

RAG CUTTERS



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Twines

(F. o. b. Mill)

Cotton—			
No. 1	.39	@	.40
No. 2	.37	@	.38
No. 3	.36	@	.37
B. C. 18 basis	.38	@	.40
A. B. Italian, 18 basis	.48	@	.53
Finished Jute—			
Dark 18 basis	.24	@	.25
Light 18 basis	.27	@	.28
Jute Wrapping, 3-6 Ply—			
No. 1	.21	@	.23
No. 2	.20	@	.22
Tube Rope—			
4-ply and larger	.18	@	.19
Fine Tube Yarn—			
5-ply and larger	.23	@	.27
4-ply	.24	@	.28
3-ply	.26	@	.30
Unfinished India—			
Basis	.16	@	.17
Paper Makers Twine			
Balls	.13	@	.15
Box Twine, 2-3 ply	.17	@	.19
Jute Rope	.21	@	.23
Ameri. Hemp, 6	.29	@	.31
Sisal Hay Rope—			
No. 1 Basis	.18	@	.20
No. 2 Basis	.16	@	.18
Sisal Lath Yarn—			
No. 1	.16	@	.18
No. 2	.14	@	.16
Manila Rope	.24	@	.26

CHICAGO

All Rag Bond	.35	@	.41
No. 1 Rag Bond	.25	@	.35
No. 2 Rag Bond	.14	@	.25
Water Marked Sulphite Bond	.09	@	.12
Sulphite Bond	.06¾	@	.11
Superfine writing	.18	@	.24
No. 1 fine writing	.14	@	.18
No. 2 fine writing	.12	@	.14
No. 3 fine writing	.08½	@	.12
No. 1 M. F. Book	.06½	@	.07¾
No. 2 M. F. Book	.05¼	@	.06¾
No. 1 S.&S.C. Book	.06¾	@	.07¾
No. 2 S.&S.C. Book	.05¾	@	.06½
Coated Book	.07½	@	.12
Coated Label	.07½	@	.10
News—Roll, mill	.03½	@	.04¼
News—Sheets, mill	.03¾	@	.04¾
No. 1 Manila	.04¼	@	.05¾
No. 1 Fibre	.04¾	@	.05½
No. 2 Manila	.04¼	@	.04¾
Butcher's Manila	.04	@	.04½
No. 1 Kraft	.05¾	@	.06¼
Southern Kraft	.04½	@	.05
No. 2 Kraft	.05	@	.05¼
Wood Tag Boards	.04¼	@	.06¼
Sulphite Screenings	.03	@	.03¼
Manila Tissue—			
24x36 Sheet	.07	@	.07¼
White Tissue—			
20x30 Sheet	.07¼	@	.07½
Boards, per ton—			
(Delivered Central Territory)			
Plain Chip	37.50	@	41.00
Solid News	47.50	@	—
Manila Lined Chip	55.00	@	—
Container Lined—			
(Delivered Central Territory)			
85 Test	65.00	@	70.00
100 Test	70.00	@	—

Old Papers

(F. o. b. Chicago)

Shavings—			
No. 1 Hard White	2.80	@	2.90
White Env. Cuttings	3.60	@	3.70
No. 1 Soft Shavings	2.50	@	2.60
No. 1 Mixed	1.00	@	1.05
No. 2 Mixed	.90	@	1.00
Ledger & Writings	1.55	@	1.65
Solid Books	1.25	@	1.35
Blanks	1.70	@	1.80
Krafts	1.90	@	2.00
New Kraft Cuts	2.25	@	2.35
Manila Envelope Cuttings	2.00	@	2.10
Ex. No. 1 Manila	1.55	@	1.65
Print Manila	.90	@	1.00
Folded News (oversize)	.65	@	.75
Old Newspapers—			
No. 1	.65	@	.75
No. 2	.60	@	.65
Mixed Papers—			
No. 1	.70	@	.80
Roofing Stocks—			
(F. o. b. Chicago, net cash)			
No. 1	30.00	@	—
No. 2	28.00	@	—

PHILADELPHIA

Paper

(F. o. b. Mill)

Bonds	.07	@	.40
Ledgers	.11	@	.40
Writings—			
Superfine	.13	@	.18
Extra fine	—	@	.22
Fine	.20	@	.26½
Fine, No. 2	.16	@	.25
Fine, No. 3	.12	@	.30
Book, M. F.	.06	@	.07
Book, S. S. & C.	.06	@	.07½
Book, Coated	.11	@	.16
Coated Lithograph	.09	@	.12
Label	.09	@	.12
News	.03¾	@	.04
No. 1 Jute Manila	.08½	@	.09
Manila Sul., No. 1	.04½	@	.06
Manila, No. 2	.04	@	.04½
No. 2 Kraft	.05¼	@	.05½
No. 1 Kraft	.06	@	.06¼
Common Bogus	.02¾	@	—
Straw Board	60.00	@	65.00
News Board	47.50	@	—
Chip Board	45.00	@	—
Wood Pulp Board	4.50	@	5.00
(Carload Lots)			
Binder Boards—			
No. 1, per ton	80.00	@	90.00
No. 2, per ton	75.00	@	80.00
Carload lots	65.00	@	75.00
Tarred Felts—			
Regular	58.00	@	63.00
Slaters (per roll)	.84	@	.94
Best Tarred, 1-ply (per roll)	1.85	@	1.95
Best Tarred, 2-ply (per roll)	1.44	@	1.54
Best Tarred, 3-ply	1.93	@	2.08
No. 1 Mixed Paper	.65	@	.70

Domestic Rags (New)

(Price to Mill, f. o. b. Phila.)

Shirt Cuttings—			
New White, No. 1	.11½	@	.12
New White, No. 2	.07	@	.07½
Light Silesias	.07	@	.07½
Silesias, No. 1	.07½	@	.08
Black Silesia, soft	.05	@	.05½
New Unbleached	.10½	@	.11
Washable	.04	@	.04½
Fancy	.05½	@	.06
Cottons—according to grades—			
Blue Overall	.07½	@	.08
New Blue	—	@	.04
New Black Soft	.05½	@	.06
New Light Seconds	.03	@	.03½
Khaki Cuttings	.04½	@	.05
Corduroy	.03	@	.03¼
New Canvas	.08	@	.09½
New Black Mixed	.05	@	.05½

Bagging

(F. o. b. Phila.)

Gunny, No. 1—			
Foreign	1.75	@	2.00
Domestic	1.75	@	2.00
Manila Rope	3.00	@	3.50
Sisal Rope	1.50	@	—
Mixed Rope	1.10	@	1.25
Scrap Burlaps	1.40	@	1.50
Wool Tares, heavy	3.00	@	—
Mixed Strings	1.15	@	1.25
No. 1, New Light Burlap	2.50	@	2.75
New Burlap Cuttings	—	@	2.50

Old Papers

(F. o. b. Phila.)

Shavings—			
No. 1 Hard White	3.25	@	3.35
No. 2 Hard White	3.00	@	3.25
No. 1 Soft White	2.40	@	2.50
No. 2 Soft White	1.90	@	2.00
No. 1 Mixed	1.50	@	1.60
No. 2 Mixed	.90	@	1.00
Solid Ledger Stock	2.00	@	2.10
Writing Paper	1.75	@	1.90
No. 1 Books, heavy	1.75	@	1.90
No. 2 Books, light	1.25	@	1.40
No 1 New Manila	2.40	@	2.50
No. 1 Old Manila	1.50	@	1.60
Print Manila	1.00	@	1.10
Container Manila	.80	@	.90
Old Kraft	2.25	@	2.50
Common Paper	.55	@	.60
No. 1 Mixed Paper	.55	@	.60
Straw Board, Chip	.65	@	.75
Binders Board, Chip	.65	@	.75
Overissue News	.80	@	.90
Old Newspaper	.55	@	.60

Domestic Rags (Old)

White, No. 1—			
Repacked	4.50	@	5.25
Miscellaneous	3.50	@	4.00
White, No. 2—			
Repacked	.02¾	@	.02¾
Miscellaneous	.02	@	.02¼
Thirds and Blues—			
Repacked	2.50	@	2.75
Miscellaneous	1.80	@	2.00
Black Stockings	3.75	@	4.00
Roofing Stock—			
No. 1	1.65	@	1.75
No. 2	1.40	@	1.50
No. 3	1.25	@	—
No. 4	1.10	@	1.20
No. 5A	.85	@	.90
B	.80	@	.90
C	.70	@	.80

BOSTON

Paper

(F. o. b. Mill)

Ledgers—			
Sulphite	.07½	@	.15
Rag content	.15	@	.30
All rag	.38	@	.52½
Bonds—			
Sulphite	.06½	@	.11½
Rag content	.15	@	.30
All rag	.36½	@	.65
Writings	.07	@	.20
Superfines	.11	@	.31
News	.03½	@	.04
Book, Super	.06	@	.09
Book, M. F.	.05¾	@	.08½
Book, Coated	.08½	@	.20
Coated Litho	.09	@	.12
Label	.09½	@	.15
Jute Manila No. 1	.11	@	.13
Manila, Sul. No. 1	.04¾	@	.06½
Manila, Sul. No. 2	.03¾	@	.04½
No. 1 Kraft	.05½	@	.06½
No. 2 Kraft	.04¼	@	.05
Common Bogus	.02¼	@	.02¾
Delivered New England points			
Straw Board, rolls .009			57.50
Straw Board in Sheets, basis 35s to 70s	54.50	@	55.00
Filled News Board			47.50
Chip Board			45.00
Single Manila Pulp lined board	55.00	@	60.00
Single White, patent coated board bender	72.50	@	80.00
Wood Pulp Board	80.00	@	85.00
Binder Boards	70.00	@	75.00
(F. o. b. Mill)			
Tarred Felts—			
Regular, carload lots	65.00	@	—

Old Papers

(F. o. b. Boston)

Shavings—			
No. 1 Hard White	3.25	@	3.75
No. 2 Hard White	2.60	@	2.90
No. 1 Soft White	2.45	@	2.55
No. 1 Mixed	1.10	@	1.15
No. 2 Mixed	.85	@	.90
Solid Ledger Stock	2.35	@	2.45
No. 1 Books, Heavy	2.00	@	—
No. 1 Books, Light	—	@	1.15
Manila Env. Cuttings	2.00	@	2.25
No. 1 Old Manila	1.20	@	1.25
White Blank News	1.40	@	1.50
Old Kraft	2.00	@	2.10
Print Manila	.70	@	.80
No. 1 Mixed Paper	.47½	@	.50
Overissue News	.70	@	.80
Old Newspapers	.50	@	.60
Box Board, Chip	.65	@	—

Bagging

(Price f. o. b. Boston)

Gunny No. 1—			
Foreign	—	@	1.75
Domestic	1.60	@	1.70
Manila Rope—			
Foreign	2.50	@	2.85
Domestic	3.00	@	3.50
Mixed Strings	.85	@	1.00
Scrap Burlaps	1.40	@	1.50
Wool Tares, heavy	1.60	@	1.65
New Burlap Cutting	—	@	2.00

Domestic Rags (New)

(Price f. o. b. Boston)

Shirt Cuttings—			
New White No. 1	.09	@	.10
Silesias, No. 1	.05	@	.05¼
New Unbleached	.09½	@	.10
Fancy	.04	@	.04½
Washable	.04	@	.04½
Cottons—According to grades			
Blue Overalls	.06	@	.06½
New Black, soft	.04	@	.04¼
Khaki Cuttings	.04	@	.04¼
Corduroy	.03	@	.03½
New Canvas	.08	@	.08½

Domestic Rags (Old)

(Price f. o. b. Boston)

Canvas	.04½	@	—
White No. 1—			
Repacked	4.75	@	5.25
Miscellaneous	5.00	@	—
White No. 2—			
Repacked	.04½	@	.05
Miscellaneous	.03½	@	.04
Thirds and Blues—			
Repacked	2.00	@	2.15
Miscellaneous	1.75	@	1.90
Roofing Stock—			
No. 1	1.75	@	1.85
No. 2	1.25	@	1.35
No. 3	1.05	@	1.10
No. 4	1.10	@	1.15

Foreign Rags

(F. o. b. Boston)

Dark Cottons	1.55	@	1.60
New No. 1 Shirt Cuttings	9.00	@	10.00
Dutch Blues	2.00	@	2.12½
Lace Curtains	4.50	@	5.00
New Checks & Blues	4.50	@	4.65
Old Fustians	1.90	@	—

TORONTO

Paper

(F. o. b. Mill)

Bond—			
No. 1 Sulphite	.12½	@	—
No. 2 Sulphite	.10¾	@	—
No. 1 Colored	.13½	@	—
No. 2 Colored	.11¼	@	—
Ledgers (sulphite)	—	@	—
Ledgers, No. 1	.36	@	—
Ledgers, No. 2	.27	@	—
Writing	.09½	@	.10
News f. o. b. Mills—			
Rolls (carloads)	3.25	@	—
Sheets (carloads)	3.75	@	—
Sheets (2 tons or over)	4.00	@	—
Book—			
No. 1 M. F. (carloads)	7.50	@	—
No. 2 M. F. (carloads)	7.25	@	—
No. 3 M. F. (carloads)	7.00	@	—
No. 1 S. C. (carloads)	8.00	@	—
No. 2 S. C. (carloads)	7.75	@	—
No. 3 S. C. (carloads)	7.50	@	—
No. 1 Coated and Litho	14.50	@	—
No. 2 Coated and Litho	13.50	@	—
No. 3 Coated and Litho	12.75	@	—
Coated tinted	.15	@	—
Wrapping—			
Rag Brown	4.95	@	—
White Rag	5.25	@	—
"B" Manila	5.80	@	—
No. 1 Manila	6.65	@	—
Fiber	6.65	@	—
Kraft, M. F.	7.00	@	—
M. G.	7.60	@	—

Pulp

(F. o. b. Mill)

Ground Wood	30.00	@	31.00
Sulphite easy bleaching	62.00	@	—
Sulphite news grade	62.00	@	—
Sulphite, bleached	75.00	@	—
Sulphate	65.00	@	—

Old Waste Paper

(In carload lots, f. o. b. Toronto)

Shavings—			
White Env. Cut	3.00	@	—
Soft White Book Shavings	2.85	@	—
White Blk, News	1.50	@	—
Book and Ledger—			
Flat Magazine and Book Stock (old)	1.40	@	—
Light and Crumpled Book Stock	1.25	@	—
Ledgers and Writings	1.50	@	—
Solid Ledgers	1.50	@	—
Manilas—			
New Manila Cut	1.50	@	—
Printed Manilas	1.00	@	—
Kraft	2.25	@	—
News and Scrap—			
Strictly Overissue	.80	@	—
Strictly Folded	.80	@	—
No. 1 Mixed Paper	.65	@	—

Domestic Rags

(Price to mills, f. o. b. Toronto)

No. 1 White Shirt Cuttings	.11½	@	—
Fancy Shirt Cuttings	.05½	@	—

H. S. TAYLOR
Consulting Engineer

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Paper Mill Stocks and Bonds

Quoted by Messrs. McGay & Co., 25 Broad street, New York City, to whom all inquiry for quotations on these or any other Securities is referred.

BONDS	BID	ASKED
Abitibi Fibre Company 6s, 1947	103½	105
Abitibi Power & Paper 6s, 1940	104½	106½
Abitibi Power & Paper 6s, serially to 1934	100½	102½
A. P. W. Paper Co. 7s, 1945	101½	103½
American Writing Paper 6s, 1947	86	89
Bastrop Pulp & Paper 6½s, 1940	103½	105½
Beaver Board 8s, 1933	102	103
Beaver Products Corp. 7½s, 1942	109	111
Bedford Pulp & Paper 6½s, 1942	98	100
Belgo-Canadian Paper 6s, 1943	103	105
British-Columbia Pulp & Paper 6s, 1950	90	92
Brompton Paper Serial A 6s, 1946	101½	103½
Brompton Pulp & Paper 6s, 1935	100	...
Brown Paper Mills Serial 6s, 1941	99	101
Brown Company 5½s, 1946	102	104
Bryant Paper 6s, 1942	100	101½
Canadian Paper Board 7s, 1937	97½	99½
Cape Breton Pulp & Paper 6s, 1932	103	...
Celotex Company 6s, 1929	97	99
Celotex Company 6½s, 1939	100	102
Celotex Company of Chicago Debenture 6s, 1936	97	100
Central Paper Company Serial 6½s, 1942	86	89
Central Paper 7s, 1934	85	90
Champion Coated Paper Serial 6½s, 1934	100	...
Champion Coated Fibre Notes 6s, 1941	100	102
Champion Fibre Notes 6s, 1941	100	102
Champion Fibre Notes 8s, 1930	100	...
Champion Paper Corp. 6s, 1945	95	98
Chicago Mill & Lumber Serial 5½s, 1936	98	100
Container Corp. of America Debenture 6s, 1936, ex-warrants	99	101
Continental Paper Products 6½s, 1943	92	95
Cornell Wood Products 7½s, 1937	103	...
Crown Willamette 6s, 1951	102	103½
Dells Paper & Pulp Serial 6s, 1938	95	98
Dixon Board Mills Serial 6s, 1942	60	...
Donnacona Paper 5½s, 1948	97	98½
Eastern Manufacturing Co. 7s, 1938	98	100
Escanaba Paper Serial 6s, 1939	98	100
Escanaba Paper 6½s, 1935	96	99
Filer Fibre Serial 7s, 1935	90	95
Fort Orange Paper 7s, 1942	101½	103
Fort William Paper 6s, 1946	101	104
Fox River Paper 7s, 1931	100	...
Fraser Company 6s, 1950	103	105
Hammermill Paper Serial 6s, 1939	101	...
Hawley Pulp & Lumber 6s, 1946	96	...
Hawthorne Paper Company 6s, 1937	80	...
Hoberg Paper & Fibre 7s, 1937	95	97
Industrial Fibre Corp. Debenture 8s, 1933	100	...
International Paper 6s, 1955	102	104
International Paper 5s, 1947	100	101
Itasca Paper & Prairie River Paper Serial 5½s, 1938	99½	...
Itasca Paper & Prairie River Paper Serial 6s, 1938	99	...
Jessup & Moore First 6s, 1945	88	92
Kalamazoo Vegetable Parchment 6s, 1938	99	101
Lake Superior Pulp & Paper 6s, 1941	105	108
Manitoba Paper 6½s, 1936	102½	104½
Marathon Paper Mills Serial 5½s, 1942	99½	101
Marathon Paper Mills Serial 6s, 1937	100	...
Marinette & Menominee 7½s, 1936	103	105
Mead Pulp & Paper 5% Notes Serially, 1937	95	100
Mead Fibre 7s, 1937	98	101
Menosha Printing & Carton 6½s, 1939	99½	...
Midwest Box Company 6½s, 1940	100	...
Minnesota Ontario Paper Serial 6s, 1945	99	101
Murray Bay Paper 6½s, 1947	103	105
Munising Paper Serial 6s, 1936	98	...
Nekoosa Edwards Paper 6s, 1942	96	...
Ontario Pulp & Paper 6s, 1931	108½	110½
Orono Pulp & Paper 6s, 1943	99	...
Orono Pulp & Paper 5s, 1941	96½	...
Oswegatchie Paper Serial 6s, 1932	95	100
Oswego Falls Corp. 6s, 1941	99	102
Oxford Paper 6s, 1947	102½	...
Oxford Paper 6s, 1947	102½	...
Paepcke Paper Mills 7s, 1930	99	...
Parker-Young Company 6½s, 1944	98	100
Paterson Parchment Paper 6s, 1938	101½	103
Penobscot Chemical Fibre 6s, 1942	102	105
Port Alfred Pulp & Paper 6½s, 1943	105	107
Port Alfred Pulp & Paper 5½s, 1947	98½	100
Price Brothers 6s, 1943	105	...
Provincial Paper 5½s, 1947	98½	...
Provincial Paper 6s, 1940	100	...
Queen City Paper 7s, 1933	100	...
Richardson & Company 6s, 1938	100	...
River Raisin Paper 6s, 1936	99	101
Riordan Pulp & Paper 6s, 1942	102	104
Rolland Paper 6s, 1937	99	101
St. Anne Paper 6½s, 1946	102	104
St. Croix Paper Serial 5s, 1937	99	...
St. Helen Pulp & Paper 6½s, 1931	99	102
St. Lawrence Paper Mills 6s, 1946	101½	103½
St. Lawrence Paper Mills 6½s, 1936	100½	102½
St. Maurice Valley Corp. 6s, 1945	102	104
St. Maurice Valley Corp. 5½s, 1947	98½	100½
St. Regis Paper of Canada 6s, 1931	100	101½
St. Regis Paper of Canada 6½s, 1934	100	101
Smith (Howard) Paper Mills 6s, 1934	101	...
Smith (Howard) Paper Mills 7s, 1941	104	106
Southern Paper Company 6½s, 1937	100	...
Spanish River Pulp & Paper 6s, 1931	108	110
Stevens-Thompson Paper 6s, 1942	94	96
Taggart Brothers 6s, 1944	95	100
Tait Paper &Color Industries 6s, 1935	88	92
Ticonderoga Pulp & Paper 5s, 1930	94	...
Ticonderoga Pulp & Paper 6s, 1940	100	102
Tomahawk Kraft Paper 6s, 1938	98	...
Tomahawk Pulp Paper 7s, 1932	99	...
Tonawanda Paper 5½s, Series 1941	99	102
U. S. Envelopes 5s, Series 1934	99	...
Union Bag & Paper Power 6s, 1932	98	100
United Wall Paper Factories 6s, 1947	96	99
Warren (S. D.) Company 6s, 1945	103	105
Watab Paper 6½s, 1942	102½	104½
Waterway Paper Products 6s, 1931	100½	101½
Wayagamack Pulp & Paper 6s, 1951	103	105
Westfield River Paper Serial 7s, 1943	89	93
Whitmer-Parsons Pulp & Lumber 8s, 1938	13	20
Whitaker Paper 7s, 1942	108	110

STOCKS	BID	ASKED
American Box Board, Pfd.	9¼	10¼
American Box Board, Com.	9¼	10¼
Am. Tissue Mills, 7% Pfd.	90	93
British Columbia P. & P., Pfd.	66	71
Brompton Pulp & Paper, 8% Pfd.	100	102
Brown Corpn., 7% Pfd.	104	None Off.
Champion Fibre, 7% Pfd.	108	110
Diem & Wing, 7% Cum. Pfd.	92	97
Eastern Mfg. Co., 1st Pfd.	61	65
Great Northern Paper, Com.	83	86
Hammermill Paper, 7% Pfd.	108	110
Hinde & Dauch, Com.	135	None Off.
Hinde & Dauch, 6% Pfd.	102	None Off.
Holyoke Card & Paper	160	None Off.
Marathon Paper Mills, Com.	125	...
Midwest Box Co., 8% Pfd.	98	102
Midwest Box Co., 6% Pfd.	95	99
Louis De Jonge Co., 7% Pfd.	94	97
Oxford Papers, Com.	175	185
Oxford Paper Co., Pfd.	109	111
Penobscot Chemical Fibre, Com.	70	80
Richardson Co., Com.	180	200
Rubberoid	112	117
Sabin Robbins Paper Co., 7% Pfd.	105	110
St. Croix Paper	150	170
St. Regis Paper Co., 7% Cum. Pfd.	...	110½
Westfield River Paper Co., 1st Pfd.	Wanted	None Off.
West Virginia Pulp and Paper Company	58	63
West Virginia Pulp & Paper, Pfd.	102½	105½
Whittaker Paper, 7% Cum. Pfd.	105	None Off.

Boston Paper Market Marking Time

[FROM OUR REGULAR CORRESPONDENT]

BOSTON, Mass., June 4, 1928.—"We are marking time—there have been no great changes in our prices during the past week and although business has been exceptionally light for this time of the year there have been signs that characterize a more active future and we believe that all the Boston paper dealers seem to be expressing a more confident attitude regarding the paper demand." This information came from the head of a reputable Boston paper house and the words themselves really analyze the present situation. A larger volume of business was transacted during the week and dealers believe that the standard will be reached in a short time.

The old rope market has been strengthened for the first time in two years due largely to a heavy request from foreign mills and the consequent reduction in European export tonnage. Large users of domestic rope were campaigning to hold the price to 3.37½ cents but the need of supplies in smaller factions necessitated the rise to 3.50 cents. Foreign rope sold at 3.12½ cents. There is little chance of a boost in the price of strings as two New Englands mills are absorbing it sparingly. Brokers quoted it at $1.00 per 100 pounds.

Folded news experienced a cut of 50 cents when it became known that two New England board mills were paying only $11. New England consumers are still paying $9.50 for mixed paper, but a cut of 50 cents in this price is foreseen by them shortly. The market for books is fairly steady but the June price of a prominent Fitchburg consumer, who has been securing this stock at $2.10 delivered, is being awaited with considerable interest by others as it is thought that his action will undoubtedly affect the present price. Foreign importers are standing pat on their prices on foreign books and pams in offering Massachusetts mills shipments at $1.80 delivered.

Simplification for Grocers' Paper Bags

WASHINGTON, D. C., June 6, 1928.—The Simplified Practice Division, Department of Commerce, is notifying the industry that the simplified practice recommendation, No. 42, dealing with grocers' paper bags, has been reaffirmed for another year, effective June 1. A survey by the Division has indicated 95.55 per cent adherence to the recommendation.